Public Utilities

FORTNIGHTLY

June 24, 1937

PUBLIC UTILITIES REPORTS, INC.
PUBLISHERS

Mr. Utility executive..

have you seen

THE CARLTON

The large capacity SILEX

Recent installations prove The Carlton brews sufficient coffee to supply the largest restaurants and hotels. And these large establishments . . . the volume wattage users . . . are the ones you want to sell.

The 4-unit Carlton has two combination high heat-low heat 1000-115 watt elements and two low heat 115 watt elements. The 4 gallon automatic water heater, with a rating of 1650 watts, is automatically filled.

The Carlton is also made in an eight unit size for very large installations.

Silex is made in both gas and electric models. All Silex glass coffee makers have Pyrex brand glass, guaranteed against heat breakage. Prices range from $17.45 to $228.45. Model shown $173.95, complete with glassware.

The Silex Company, Dept. P.
Hartford, Conn.

In Canada: The Silex Company Ltd.,
Ste. Therese, Que.

Genuine SILEX

TRADE MARK REGISTERED U.S. PAT. OFF.

Editor—HENRY C. SPURR
Associate Editors—ELLSWORTH NICHOLS, FRANCIS X. WELCH
Contributing Editor—OWEN ELY

Public Utilities Fortnightly

VOLUME XIX *June 24, 1937* NUMBER 13

Contents of previous issues of PUBLIC UTILITIES FORTNIGHTLY *can be found by consulting the "Industrial Arts Index" in your library.*

¶ *This magazine is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.*

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Pages with the Editors

THE utilities, it would appear, are about to be investigated again. With the reports of the 8-year marathon probe by the Federal Trade Commission into gas and electric companies scarcely settled on the library shelves, and with the Federal Communications Commission investigation of the telephone industry not yet completed, the appreciative congressional audience already wants an encore. Public ownership is to be the latest approach, but it's ten to one that some of the tunes will be pretty familiar to most of us.

IT should take no congressional investigation to establish the fact that the privately owned utility companies are against public ownership and that some of them have gone so far as to say so—in print and otherwise. However, there is nothing like being certain. Anyway, some of the gentlemen on capital hill have been hearing and repeating daily horror stories about the scandalous doings of Big Business so long that they are beginning to frighten themselves. They are afraid perhaps that Ambassador Dodd's billionaire bugaboo is plotting their personal downfall.

THE situation recalls the tale of the man who entered the dining room of a hotel in a country town and finding every seat occupied, devised a scheme that would bring about a stampede. He called out loudly that there was a whale at the depot sixty feet long and was gratified to see the place quickly evacuated. Sitting down to enjoy his meal, he was surprised to note that the whole town had become agitated. He saw crowds rushing to the depot, agog over the news. Finally, the excitement becoming contagious, he grabbed his hat and joined the procession, saying: "There might be a whale down there at that." It goes to show what environment may do.

JOHN BAUER

What good is regulation anyhow?

(SEE PAGE 797)

LOUISE C. MANN

She finds the Mexican power industry in pretty bad shape.

(SEE PAGE 816)

WE also have been doing a little investigating of the privately owned power industry. But just to be different, we decided to see what was happening to the electric companies across the border in Mexico. It came about this way. MRS. LOUISE C. MANN, who has for some time been contributing a weekly compilation of commodity statistics to the *Boston Transcript*, recently returned from a stay in Mexico where she served as correspondent for the *New York Journal of Commerce*. We learned that in the process of gathering data for a series of business and financial news stories MRS. MANN had also interviewed many of the prominent men in business and political control, both in Mexico and the United States. It also developed that she had, by fortunate circumstance, taken particular interest in the status and prospects of the electric industry in modern Mexico. Her article beginning page 816 is the result.

PROBABLY the Federal government, under the present administration at least, would not be interested in investigating such a question as what finally happens to an industry when its growth is strait-jacketed by burdensome domination of labor and government; but the possible analogy between the reasons for the present state of the Mexican power industry as MRS. MANN finds it and certain current trends in the treatment of electric utilities in the United States may make interesting reading to those who do not think that anyone who forecasts ruin from radicals is necessarily a morbid or self-seeking alarmist.

WE are glad to welcome back with us in this issue our good friend, contributor, and perhaps occasional critic, JOHN BAUER, who writes on the subject of whether commission regulation of utilities can be made effective. Brought by his parents from Russia in 1892, DR. BAUER was educated at Doane College at Crete, Neb. (B.A., LL.D.) and Yale University (Ph.D.). Starting out as a teacher, his interest soon switched (via a staff job with the New York Public Service Commission) to professional analysis of public utility regulation. He became noted as a rate expert and is now director of the American Public Utilities Bureau—a consulting group. His collateral activities, duties, and affiliations in the field are too numerous to mention here. We think of him chiefly in the aspect of an editorial colleague for he now serves in that capacity on the staffs of the *National Municipal Review, Public Management, Public Ownership of Public Utilities,* and *The People's Money.*

Two more professors round out the list of contributors to this issue. DR. EMERY C. TROXEL, the first part of whose article on the effect of the depression on regulation begins on page 787, will be recalled as a more recent recruit to our army of regular contributors. He is now assistant professor of economics at Wayne University in Detroit. DAVID STATHEM WEAVER, whose article on rural electrification in the Tarheel state commences on page 808, is head of the Department of Agricultural Engineering of North Carolina State, where he has taught this subject in various faculty capacities since 1923. MR. WEAVER was born in Westwood, Ohio, in 1896, and was educated at Ohio State (B.S.) and North Carolina State (M.S.) universities. He is now on leave of absence from his professorial duties to assist in the work of the Rural Electrification Administration at Washington, D. C.

C. EMERY TROXEL

What lesson has the depression taught in the way of utility regulation?

(SEE PAGE 787)

DAVID S. WEAVER

Tarheel rural power lines go to town.

(SEE PAGE 808)

AMONG the important decisions preprinted from *Public Utilities Reports* in the back of this number, may be found the following:

THE right of a public utility company to a fair trial and a decision based upon the evidence is emphasized in a Supreme Court ruling on an order requiring a refund of overcharges. (See page 305.)

OBJECTIVE rates have been condemned as impractical and discriminatory by the Arizona commission. (See page 315.)

The next number of this magazine will be out July 8th.

The Editors

In This Issue

In Feature Articles

In Financial News

In What Others Think

In The March of Events

In The Latest Utility Rulings

PREPRINTS FROM PUBLIC UTILITIES REPORTS

Various regulatory rulings by courts and commissions reported in full text, pages 305-368, from 18 P.U.R.(N.S.)

Remarkable Remarks

"There never was in the world two opinions alike."
—MONTAIGNE

JOHN DEWEY
Professor of Philosophy, Columbia University.

"If liberalism means anything, it means complete and courageous devotion to freedom of inquiry."

COLBY M. CHESTER
President, National Association of Manufacturers.

"No intelligent business man would dare say that the workers everywhere are as well paid as they might be."

ROBERT H. MONTGOMERY
Professor of Economics, University of Texas.

"The United States Supreme Court has sabotaged all efforts at regulation of utilities for the last fifty years."

WALTER J. KOHLER
Wisconsin industrialist.

"The American people want economic progress. Cumbered with bureaucracy and enmeshed in red tape, they cannot hope for it."

ARTHUR E. MORGAN
Chairman, Tennessee Valley Authority.

"In my opinion some things can best be done by private initiative, some by public undertakings, and some by a combination of both."

WALTER S. GIFFORD
President, American Telephone and Telegraph Company.

"If the prices of practically everything, including wages and taxes, continue to rise, telephone rates cannot continue contrary to the general trend."

OSWALD GARRISON VILLARD
Editorial Associate, The Nation.

"We are continuing our absurd policy of obliging the Soviet government by purchasing at $35 an ounce all the gold it is digging out of the Ural mountains, and then proceeding to rebury that gold in a hole in the ground in Kentucky."

J. F. FOGARTY
President, The North American Company.

"There is increasing evidence of a growing public appreciation throughout the country of the soundness and advantages of private operation of electric utilities as well as of the fact that the consumer and the investor have a common interest."

DAVID LAWRENCE
Newspaper columnist.

"Is it so soon forgotten that not three dissenting justices of the Supreme Court but the entire court, young and old, conservatives and liberals, condemned the NRA, and that Justice Cardozo, liberal of liberals, spoke of this law as 'delegation run riot'?"

DAVID E. LILIENTHAL
Director, Tennessee Valley Authority.

"Corporation management, rather than the threat of competition from TVA, is responsible for the inability of the power companies in the Southeastern region to refinance through existing cheap money rates."

JOHN J. PARKER
North Carolina judge.

"It is infinitely better that reforms should follow the slow process of gradual education and adoption than that they should be forced upon a people unprepared for or unwilling to accept them, or that the price of their attainment be the sacrifice of democracy."

MME. ODETTE KEUN
French writer.

"The immortal contribution of the TVA to Liberalism, not only in America, but all over the world, is the blueprint it has drawn, and that it is now transforming into a living reality, of the road which Liberals believe is the only road mankind should travel."

JOSEPH C. O'MAHONEY
U. S. Senator from Wyoming.

"It seems to me to be perfectly manifest that if we can increase the court to obtain our view of certain close constitutional questions, then every succeeding administration can do likewise, and the court would thereby be precipitated into the political whirlpool."

ANNUAL REPORT
New York State Power Authority.

"The experience of the hydroelectric commission of Ontario and the opinions of utility executives warrant the assumption that an average domestic consumption of 3,000 kilowatt hours per consumer may be expected to result from domestic rate policies reflecting service at cost."

EDWARD B. HALL
President, Investment Bankers Association of America.

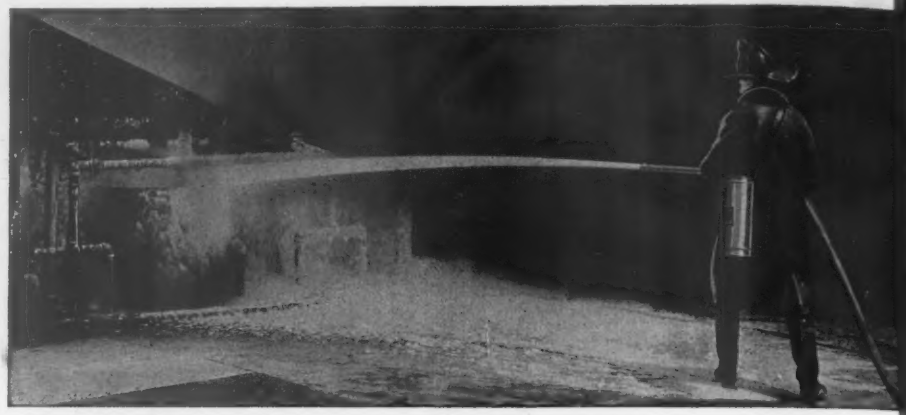
"With the broadening of ownership by thousands of investors has come an increasingly keen sense of public responsibility—not only because the majority of business leaders are that kind of men, but also because of the recognized business value of satisfactory public relations."

DAVID FRIDAY
Economist.

"Business recovery will continue until the index of industrial production, as shown in the Federal Reserve Board's index, reaches the highest level of the last boom, which was 125, and it probably will go farther. After it reaches its highest point, possibly 130, there will be a slight recession."

CHARLES W. KELLOGG
President, Edison Electric Institute.

"In the utility business, which is engaged in furnishing public need which persists to a considerable extent in bad times as well as good, the security of the individual engaged in it is much greater than for the average industrial worker, provided the utility retains the confidence of the public it serves."



A New Low-Cost Foam Tool!

Combines Water, Solution and Air To Form Fire-Smothering Foam

Public utilities are welcoming this revolutionary larger-capacity foam equipment for flammable liquid fires.

The specially designed PHOMAIRE Play Pipe connects to your hose line (¾" to 2½"). When the water is turned on, PHOMAIDE, a new foam-making solution carried in a Hip Pack, and air are automatically drawn into the water stream in the proper proportions to form foam.

There are no complicated preliminaries, no confusing adjustments, no moving parts. And only one man is required at the Play Pipe.

Less than 20 gallons of water at a pressure of 75 pounds or more are required per minute. This is the only efficient foam unit available for small lines. One gallon of Phomaide Solution makes 350 gallons of foam. 300 to 400 gallons per minute may be continuously produced by merely pouring additional solution into the Hip Pack.

This is NEWS. Without obligation, ask for descriptive literature, prices and a demonstration of the Phomaire Unit illustrated at the left. Don't wait! Mail your request now.

Get the Latest Foam Equipment

Phomaire PLAY PIPE and Phomaide SOLUTION

developed, made and sold by

Pyrene Manufacturing Company
NEWARK NEW JERSEY
ATLANTA KANSAS CITY CHICAGO SAN FRANCISCO

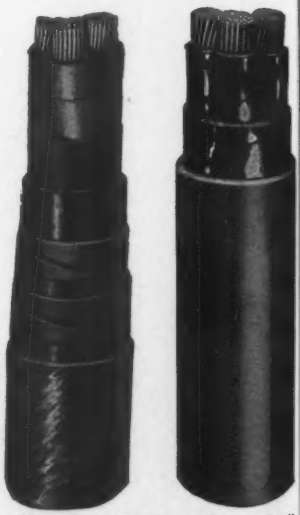
"Chief, I told you we'd Save time on this job by using"

CRESCENT CABLE

Listen to those lads "down under" if you want the real lowdown on cable. Make it easy for them by putting Crescent Cable on the job and you'll make it easy for yourself by cutting time and labor costs to a minimum. Throughout the entire line, you'll find Crescent Wire and Cable equal to the toughest jobs.

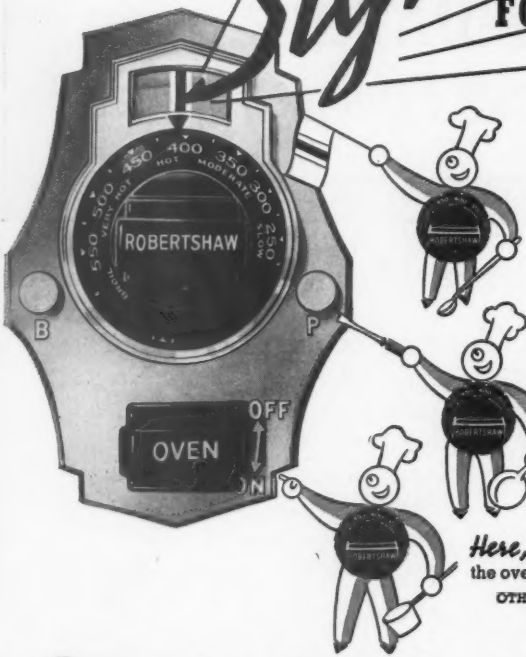
CRESCENT
INSULATED WIRE & CABLE CO. INC
TRENTON, NEW JERSEY

CONTROL CABLE
DROP CABLE
LEAD COVERED CABLE
MAGNET WIRE
PARKWAY CABLE
RUBBER POWER CABLE
SERVICE ENTRANCE CABLE
SIGNAL CABLE
VARNISHED CAMBRIC CABLE
WEATHERPROOF WIRE



All types of Building Wire and all kinds of Special Cables to meet A.S.T.M., A.R.A., I.P.C.E.A., and all Railroad, Government and Utility Companies' Specifications.

THE OVEN-HEAT CONTROL THAT *Signals* FOR ATTENTION



Here in the Thermal Eye window, when the oven reaches the temperature set by the dial, a red signal comes into view

Here on the bezel, the oven by-pass (B) and safety pilot (P) are easily adjusted with a screw driver

Here, mounted on the bezel of the control, is the oven cock

OTHER MODELS FOR EVERY SERVICE NEED

ROBERTSHAW THERMAL EYE oven heat control provides your salesman with an entirely new approach in gas range selling.

Now he has something exciting to show, something real to say: "Here, madam, is the event of the year in gas ranges—a great improvement that *you* will appreciate!"

And Thermal Eye control backs him up with action. The prospect sees this new control actually *signal* when the oven reaches the temperature set on the dial.

See that *your* ranges are equipped with this attention-getting control. It will energize your selling.

OVER 2,800,000 IN USE

ROBERTSHAW THERMOSTAT COMPANY, Youngwood, Penna.

ROBERTSHAW OVEN-HEAT-CONTROL *with the* **Thermal Eye**

A Load Builder That Will Make Friends For You

• THE BIPOST

(1000 WATT T-24)
TOTALLY INDIRECT

LUMINAIRE

HERE is a new, small diameter, permaflector equipped luminaire, developed by "Pittsburgh" engineers to provide high intensity indirect lighting for rooms where ceilings are low or where larger units are impractical.

It is modern and distinctive in appearance and scientifically designed to control 1000 watts of light in the most efficient and satisfactory manner.

Its shallow bowl—a type much in vogue today—serves only as an ornamental enclosure for the Permaflector of smooth glass which controls the light.

The fixture is equipped with a unique dual husk, concealing the socket and lamp neck, ingeniously ventilated. No exposed vents mar its design.

Stranded nickel wire with 40 mil. wall of asbestos insulation is used in this fixture, additionally insulated at the socket by refractory tubing.

Many of your customers are prospects for luminaires of this type and you can unhesitatingly recommend this unit which is backed by more than 21 years of successful lighting experience.

Write for details.

SPECIFICATIONS

Standard Lamps, Size	1000 *Watt T-24 Bipost*
Luminaire No. (Available with stem-hanger only)	A-581
Diameter of Bowl	21″
Standard Suspension:	
Top of Bowl to Ceiling	36″
Overall Length	43″
Permaflector No.	B-507
*Standard Finish	Roman Silver
Shipping Weight (One Luminaire Packed)	23 lbs.
Code	AFIAWON
Price each F.O.B. Irwin, Pa.	$23.00

**On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum) at a small additional charge.*

On special order may be had finished in Lustretex gun metal, antique bronze or light bronze (husk finished in polished aluminum) at no additional charge.

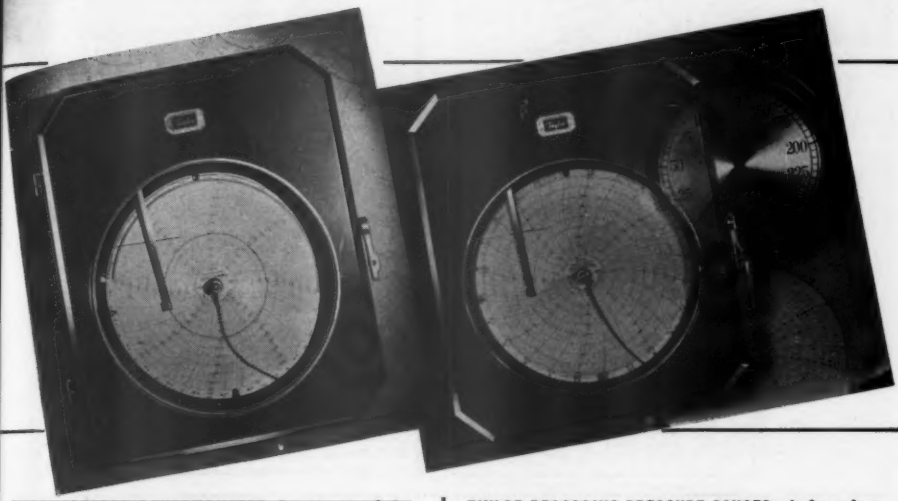
"Pittsburgh" Permaflector

PITTSBURGH REFLECTOR COMPANY

OLIVER BUILDING PITTSBURGH, PA.

Hans Helfritz, a German explorer, found three "skyscraper" towns in the Wadi Hadramaut of Southern Arabia. The oldest of these, Shibam, with a population of 7,000 people, consists of clay structures, ten to fourteen stories high. Windowless lower stories, connected by underground passages, serve as stables and for the storage of supplies. Due to the abnormally dry climate, many of these clay structures are from four to six centuries old.

LET POWER
write its autobiography



TAYLOR RECORDING THERMOMETER—In appearance, design and construction the highest type of modern recorder available today. Three types—Mercury-, Gas-, and Vapor-Actuated. Mercury type uses Taylor Accuratus Tubing, designed to compensate for temperature changes through which tubing passes and to assure correct bulb temperature readings. Dust-proof and moisture-proof cases for face-, or flush-mounting. Many styles of standard bulb assemblies are available to accommodate all types of apparatus.

TAYLOR RECORDING PRESSURE GAUGES—As fine and accurate an instrument as its brother Recorder of temperature. With latest refinements and improvements in design and construction. A pressure gauge of the highest type—long-lasting, efficient and economical in operation. In a rust-proof die-cast case which protects the inner mechanism against moisture and dust. For face-, or flush-mounting. Shown dimly behind the recorder is the Taylor Dial Gauge, outstanding among indicating instruments. Easy to read...durable...accurate.

Study its accurate record as written by the pens of Taylor Recording Thermometers and Pressure Gauges

WHO ever thought of power writing its life history? But it does—in terms of temperature and pressure, with the pens of recording thermometers and gauges. The chart chapters are vital records for every power plant. But they must be accurate records—reliable records—the truth and nothing but the truth. Through the medium of Taylor Recording Thermometers and Pressure Gauges, power plants get precise and accurate records today. These instruments are designed from beginning to end to meet the most exacting requirements in connection with the production of power. They are built to be accurate—and to give exceptionally long and economical service. (Their charts are printed on specially developed paper to eliminate reaction to atmospheric changes and to provide the ideal writing surface.)

Shown above are three types of modern Taylor Recorders designed for power plant use. A Taylor Recording Thermometer, a Recording Pressure Gauge, and a combined Recording Thermometer and Pressure Gauge, a necessity for superheated steam lines. For more complete information regarding these instruments, write for Catalog 68J on Temperature Recorders and Catalog 68JF on Pressure Recorders. For more direct data on these and any other Taylor Instrument for Power Plants, ask a Taylor Representative to cover the ground with you. For Catalogs or a Taylor Representative, address Taylor Instrument Companies, Rochester, N. Y. or Toronto, Canada. Manufacturers in Great Britain—Short & Mason, Ltd., London, England.

Taylor

Indicating Recording Controlling

TEMPERATURE, PRESSURE and FLOW INSTRUMENTS

"What does business care about you and me?"

Anyone who knows anything about business knows that the query which heads this advertisement is Foolish Question No. 1.

As well ask: what do your lungs care about air, what does a fish care about water, what does a politician care about votes?

Business *lives* by people—by people like "you and me"—for people are the market for the things Business produces and sells.

Folks in business *are* people—weary and energetic, worried and hopeful people—customers of other businesses—even as you and I.

That's all very well, you may say, for the majority of businesses, but how about the big ones—the special privilege stuff and all—how about that?

Okeh, let us ask you: what great business do you know that grew big *without having customers,* what business can stay big unless it continues to *please* the customers it has?

No, the facts are all the other way.

The bigger a business, *the more stake it has in seeing the average man prosper.*

The bigger a business, *the more vital it is that it have customers with the buying power, after paying for food, shelter and clothing, to afford the other things business has for sale.*

And smart businesses have learned that they can't simply rely on bigness. The sweetest target a quick-thinking, up-and-coming man of enterprise can have is a big competitor who isn't alive to the public's wants.

One solemn truth brought home by the depression was, that in America "When there is no business, the people perish," and every sensible business man is aware that the rule works both ways.

Four-fifths of the National Income goes to workers, that is, about 65 per cent to those paid wages and salaries by employers and about 15 percent to those who pay themselves mainly wages or salaries.

This income averages $1100 per year to each worker.

If no one of these workers were permitted a wage or salary in excess of $5000 and *all* above that amount were distributed evenly to those who receive less than $5000, each would get about 85 cents more a week.

This advertisement is published by

NATION'S BUSINESS

—a magazine devoted to interpreting business to itself, and bringing about a better understanding of the intricate relations of government and business. The facts published here are indicative of its spirit and contents. Write for sample copy to NATION'S BUSINESS, WASHINGTON, D. C.

Utilities Almanack

JUNE

24	Th	¶ *New England Gas Asso., Account. Div., holds dinner meeting, Springfield, Mass., 1937.* ¶ *Am. Society of Heating & Ventilating Engrs. starts session, Swampscott, Mass., 1937.*
25	F	¶ *Washington Independent Telephone Asso. opens convention, Edmonds, Wash., 1937.* ¶ *Amer. Inst. of Elec. Engineers ends summer convention, Milwaukee, Wis., 1937.*
26	Sa	¶ *Economic Conference for Engineers ends seventh annual meeting, Stevens Institute of Technology, Johnsonburg, N. J., 1937.*
27	S	¶ *American Water Works Association, Central States Section, will hold meeting, Dearborn, Mich., Aug. 18–20, 1937.*
28	M	¶ *Associated Municipal Signal Services starts meeting, Elizabeth, N. J., 1937.* ¶ *American Society for Testing Materials opens session, New York, N. Y., 1937.*
29	Tu	¶ *American Water Works Association, North Carolina Section, will hold convention, Wilmington, N. C., Aug. 26–28, 1937.*
30	W	¶ *Conference of Mayors and Other Municipal Officials of the State of New York ends session, Saratoga Springs, N. Y., 1937.*

JULY

1	Th	¶ *Michigan Gas Association begins annual convention, Mackinac Island, Mich., 1937.*
2	F	¶ *Society for the Promotion of Engineering Education concludes convention, Cambridge, Mass., 1937.*
3	Sa	¶ *National Association of Power Engineers will hold annual meeting, St. Louis, Mo., Aug. 30–Sept. 3, 1937.*
4	S	¶ *National Association of Railroad and Utilities Commissioners will hold convention, Salt Lake City, Utah, Aug. 31–Sept. 3, 1937.*
5	M	¶ *American Chemical Society will hold meeting, Rochester, N. Y., Sept. 6–10, 1937.*
6	Tu	¶ *American Transit Association will convene for session, White Sulphur Springs, W. Va., Sept. 19–23, 1937.*
7	W	¶ *American Gas Association will convene for annual session, Cleveland, Ohio, Sept. 27–Oct. 1, 1937.*

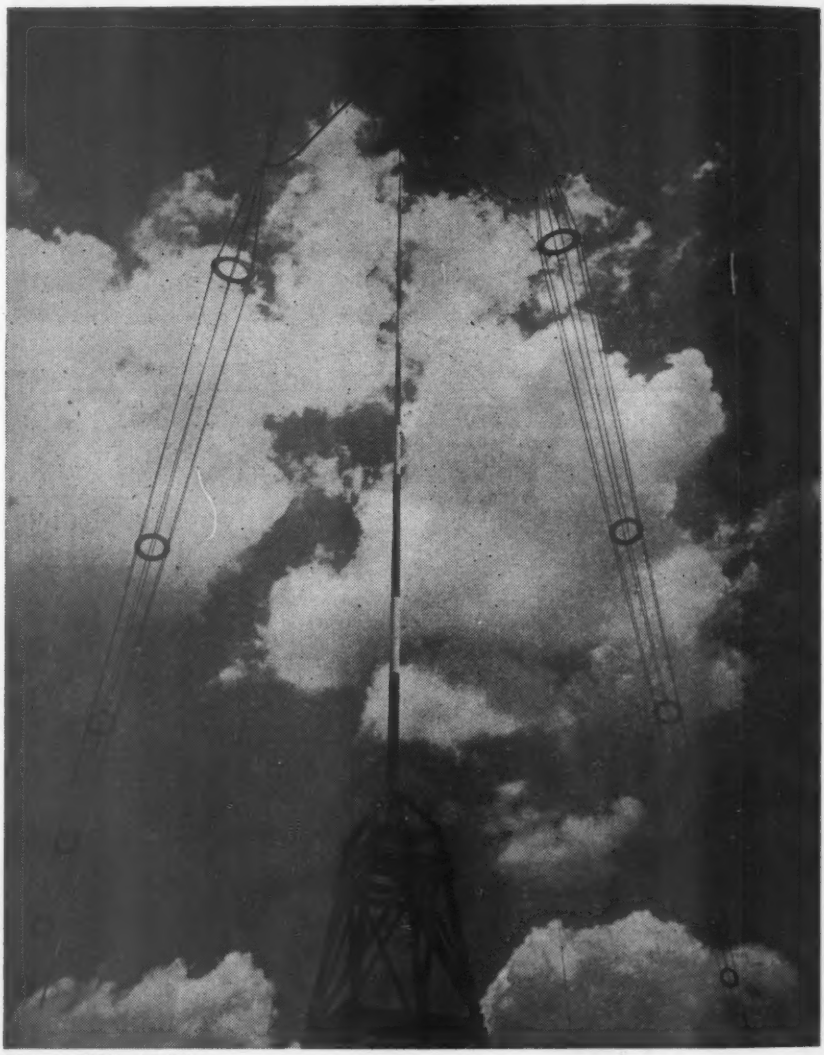


Photo by William M. Rittase

Man's Span of Time and Space

Public Utilities
FORTNIGHTLY

VOL. XIX; NO. 13 JUNE 24, 1937

Depression-hued Regulation of Public Utilities

PART I. Valuation and Return

The problems of regulation have been greatly intensified by the economic disturbances of the last few years. What has been the effect of the depression on rate bases? Did lower prices affect plant values? How about the practicability of valuation? And what about the depression returns? This part of the author's study is directed to the answer of such questions.

BY C. EMERY TROXEL

THE depression is passing, long live prosperity! Now is an opportune time to peruse utility regulation where it was (or should have been) colored by depression conditions. This great depression, said many, would be the buyers' opportunity to purchase utility services at knock-down prices. In economic parlance, a buyers' market was expected, as in the purchase of other goods. Furthermore, anyone in the hectic 'twenties, who foresaw economic chaos, also believed that rate bases for utilities would be greatly lowered if a depression and lower prices ensued. Even an abandonment of company insistence on cost of reproduction as the proper basis of valuation was predicted for the period of downswinging and low prices—for deflation time. Occasionally some concluded that low prices would provoke a reversal of the valuation rule sought by the conflicting consumer-producer interests; that consumers would insist on cost of reproduction, while utility men turned to original cost or prudent investment to defend their rates and earnings.

Never before have utility regulatory or producing interests faced such economic and financial chaos, but there

was no marked increase in rate cases, and, consequently, there was no general paring down of rate bases. Rate investigations prompted by depressed prices must be undertaken immediately and must not be protracted, otherwise the investigation in reality is useless, as noted by the Oklahoma commission.[1] Realizing that a thorough investigation could not be undertaken in each of 125 rate cases that had piled up, the New York commission in 1933, for instance, ordered immediate temporary rate reductions to alleviate the rate troubles of a portion of these cases.[2] In fact, it is a serious indictment of utility regulation that it is so cumbersome and beset with so many delays that quick disposition of cases cannot be had. With prices either moving downward or upward without leveling out anywhere, it is imperative that a rate case begun in one price situation not be concluded in another. Too many rate investigations of this depression, through several years of delay, were not concluded until new price conditions had appeared. In such situations the conclusions of a case are utterly useless for new conditions really merit another analysis.

FROM the leading rate cases reported in *Public Utilities Reports* in 1934 and 1935 a summary of rate changes ordered and time taken for investigation and commission proceedings will reveal this stymied condition of utility regulation during a depression. See Table I, page 789.

Valuation decisions of commissions and courts during the depression have given this perennial problem new twists, further confused the issue if this is possible, and are noticeably irregular in analysis of depression valuation problems. Of real interest in this instance is the seeming unwillingness of the Wisconsin commission to employ the customary "fair value" principles during the recent depression. A portion of the opinion, which resembles the Supreme Court decision in the Chesapeake and Potomac Telephone Case to be discussed later, is quoted here:[3]

> A time of business stagnation, of ruinously low prices and "subsistence" labor rates, of rapidly fluctuating prices and values, is not the time to call upon this commission to base rates upon a fair value, and thus defeat the commission's desire and, indeed, its duty to preserve the stability of this essential business. We have an obligation to the investors in this property, and until specifically directed by the courts we decline to proceed upon the basis of a fair value of the property under present conditions.

This opinion may be easily misconstrued. If "distress wage rates" and low prices obstruct employment of the fair value principle during a depression, certainly on the other extreme the same valuation measure should not be used during a period of high prices which occur during a period of scarcity and inflation. The cost of reproduction ingredient in the fair value mixture may not be based solely on rising or peak prices. Otherwise, it will be a condition of heads the utility company wins, and tails the customer loses.

ON the contrary, the Michigan commission without supportable proof believed that " . . . reproduction costs of utility property still remain high in so-called low-cost periods; and the reduced volume of business in a period of depression has had the effect . . . to maintain the prior rate levels."[4]

Doubtless, the Michigan commission did not consider "distress labor rates," which were significant in the Wisconsin opinion. This Michigan opinion is a "black sheep" among commission decisions on depression-time valuation, which commonly have concluded that cost of reproduction has fallen nearly as low or lower than original cost. The California commission, for example, on being confronted with a high company cost of reproduction valuation could not conceive that a property, "... 80 per cent of which has been constructed in the high-price period following 1919, could not be reproduced

TABLE I

Summary of Leading Rate Cases Reported in PUBLIC UTILITIES REPORTS during 1934 and 1935

*Title of Case Commission & Court Decisions:**	*Citation*	*Months Elapsing between Commencement of Case and Report Here*	*Rate Changes Resulting*
Coney v. Broad River Power Co. (S. C. Sup. Ct. 1933)	1 P.U.R.(N.S.) 439	17	Reduction
Dayton Power & Light Co. v. Ohio Pub. Utilities Commission (1934)†	3 P.U.R.(N.S.) 279	58	Reduction
Illinois Bell Teleph. Co. v. Lindheimer (1934)†	3 P.U.R.(N.S.) 337	129	Reduction
Columbus Gas & Fuel Co. v. Ohio Pub. Utilities Commission (1934)†	4 P.U.R.(N.S.) 152	53	Remanded
Wheeling v. Natural Gas Co. (W. Va. Sup. Ct. App. 1934)	5 P.U.R.(N.S.) 471	35	Increased
West Ohio Gas Co. v. Ohio Pub. Utilities Commission (1935)†	6 P.U.R.(N.S.) 449	78	Remanded
Re Potomac Edison Co. (Md. 1935)	7 P.U.R.(N.S.) 135	54	Reduction
Re Logan Gas Co. (Ohio, 1935)	7 P.U.R.(N.S.) 342	120	No Change
West v. Chesapeake & P. Teleph. Co. (1935)†	8 P.U.R.(N.S.) 433	29	No Change
Commission Decision Only:			
Commerce Commission v. Public Service Co. (Ill. 1934)	4 P.U.R.(N.S.) 1	13	Reduction‡
Department of Public Works v. Washington Water Power Co. (Wash. 1934)	4 P.U.R.(N.S.) 363	14	Adjusted
East Ohio Gas Co. v. Cleveland (Ohio, 1934)	4 P.U.R.(N.S.) 433	36	Reduction
Re Home Gas & E. Co. (Colo. 1934)	5 P.U.R.(N.S.) 107	19	Reduction
Memphis v. Southern Bell Teleph. & Teleg. Co. (Tenn. 1934)	6 P.U.R.(N.S.) 464	18	Reduction
Re Wisconsin Pub. Service Corp. (Wis. 1934)	7 P.U.R.(N.S.) 1	5	No Change
San Diego v. San Diego Consol. Gas & E. Co. (Cal. 1935)	7 P.U.R.(N.S.) 443	38	Reduction
Re Yonkers R. Co. (N. Y. 1935)	9 P.U.R.(N.S.) 337	32	No Change
Re Conowingo Power Co. (Md. 1935)	10 P.U.R.(N.S.) 353	19	Reduction

*One or more appeals.
†U. S. Supreme Court decision.
‡Temporary reduction.

for a lesser cost under prices prevailing in the first six months of 1933 . . ."[5] Or elsewhere the same commission believed a ". . . figure below actual cost would not be unreasonable."[6]

By far the most disturbing depression development concerning valuation has been the question of rate base adjustment in accordance with price changes. The depression low of prices or construction costs would have pulled down cost of reproduction estimates to less than prudent investment or actual cost in many, if not all, instances. With reproduction costs receiving some legally conceived consideration in "fair" value, rate base sums could have been fixed in many instances at less than original cost. At least this was the conclusion of many students and commissions even though they may not have put much reliance on Mr. Justice Butler's "spot" price comments of the McCardle Case.

BUT the Supreme Court in the Los Angeles Gas & Electric Case said, as it had concluded in the Southwestern Bell and Bluefield Water Cases, that[7]

> The determination of present value is not an end in itself. Its purpose is to afford ground for prediction as to the future. It is to make possible an "intelligent forecast of probable future values" in order that the validity of rates for the future may be determined.

And the Supreme Court in 1935 in the Chesapeake and Potomac Telephone Case expanded from the above opinion to the following conclusion, which may serve further to disturb effectiveness of utility regulation:[8]

> It is true that any just valuation must take into account changes in the *level* of prices . . . [but] the owner of such a property must assume and may not pass on to the public the risk involved in a general decline in values, and may have the advantage also of a general rise in such values, it would not only be unfair but impracticable to adjust the value . . . to *sudden fluctuations* in the price level . . . A public service corporation ought not . . . be permitted to claim to the last dollar an increased value consequent upon a sudden and precipitate rise in spot prices of material or labor. No more ought the value . . . be depressed by a similar sudden decline in the price level.

THE following summary of several recent commission decisions reveals the dissimilarities of calculating cost of reproduction and the confusion attending treatment of this part of the valuation process. Prior to the Supreme Court decision in the Chesapeake and Potomac Case several commissions took "cognizance of the downward trend of prices during the years of the depression" in calculating the cost of reproduction valuation ingredient.[9] In a case decided in 1934 the Illinois commission used a 5-year average of prices, but the Colorado commission considered a 5-year average of prices incorrect during a depression.[10] In two 1936 commission opinions cost of reproduction has been calculated by means of "spot" prices despite the Supreme Court's 1935 opinion in the Chesapeake and Potomac Case. The Washington Department of Public Service used prevailing prices, because they "represent more nearly the prices and values which . . . will prevail during the near future."[11] (No belief in impending inflation here!) Similarly, the Missouri commission used prices of the date of the engineering appraisal.[12] Of significance is the fact that both of the last-mentioned cases were begun before the West decision was read.

VALUATION of public utilities has been a confused, legally unsolved problem. Regarding the valuation

Returns during Economic Chaos

"BECAUSE *utility companies compete with other and unregulated businesses for their capital and because unregulated industries suffered drastic reductions in their earnings during the depression, the rate of return may be properly reduced during times of economic chaos. But the return, as observed above, should not be cut so severely that insolvency exists.*"

"generalizations announced by the courts" one commission has "come face to face with the realization that such methods . . . are conducive to arbitrary and capricious findings."[18] Added to this "speculative undertaking" of deriving a valuation containing a little of this and a dash of that, is the edict of the Supreme Court on prices as above quoted from the Chesapeake and Potomac Case. The dissenters from this decision (Justices Brandeis, Stone, and Cardozo) see no reason why price variations "are of less weight in times of declining prices" after rising prices over a 20-year period had been "persuasive evidence" for a present value in excess of cost.

Regulators, customers, and the regulated are more than ever left with no more of an idea of the legally acceptable valuation formula than a new-born babe has of mundane problems. What does the court believe to be a "sudden fluctuation" of prices? How wide the fluctuation before it becomes "sudden," or did the court intend that only a trend of prices upward or downward should be considered in valuation? Possibly the majority of the court improperly establish themselves as supreme students and forecasters of prices rather than use actual, varying prices in calculating this component of "fair" value. Students of economic and business affairs are wary of anyone who seems to be certain which prices are "normal" prices or who avows ability to predict prices five or ten years hence.

WITH the Chesapeake and Potomac Case the valuation problem is further bogged down by the newly and ill-conceived notion for omitting "sudden" changes in prices or construction costs. Furthermore, the court has with or without realization of the fact brought its valuation doctrines nearer original cost or prudent investment. If enough price fluctuations are omitted from consideration, prudent investment may be the principal, if not the only, element of utility valuation. For those who wait chances for effective utility regulation, attention is called to the possible implications of these dicta on "sudden" price changes.

Heretofore, with the rising construction costs of the war and the maintenance of a relatively high level of prices during the 'twenties, a breakdown in the economic system including a precipitous drop in prices was never encountered by commissions or courts

during the last twenty-five years. And this was the period in which effective utility regulation was sought. Companies' insistence on inclusion of impractical reproduction costs in the valuation stew probably was premised on a predicted continuance of prevailing prices or an expectation of ever-increasing prices. Or utility interests, as sometimes offhand seems, may have championed inclusion of reproduction costs for thereby all regulatory bodies are at least partially handcuffed.

ACCELERATED alterations in economic conditions, which are in bold relief during a depression, present an unbiased indictment of the slow-motion regulation process. This tortoise-like speed of utility controls, aside from repeated appeals and introduction of new evidence, chiefly emanates from this distending, chameleonic valuation procedure. As noted, a case starting during the worst depression year, 1932, but not concluded until 1936, is virtually worse for all interests than no case.

Furthermore, the cost of rate investigations under such cumbersome legal technics makes impossible more than a few thorough investigations each year by a single commission. Frequently appropriations for state regulation were pared during the depression thus heightening a recognized inadequacy of regulation.

Events of the last six years (a la politics, one wants to say six long years) have awakened the regulated and regulators from their lethargic thinking that no catastrophic change may occur in rate base figures when reproduction costs are a part of the hybrid measure of these bases.

MOREOVER, tumbling prices in this depression of all depressions boldly challenge the use of cost of production as a warranted measure of a regulated company's rate base. First, among economists and statisticians there is no common belief that prices or other economic matter may be adequately forecast except for the very near future. And of what use, then, an intensive, lengthy engineering appraisal of reproduction cost if experience of one month or year will be useless in the next? Second, it is, of course, an anomaly that reproduction is assumed to exist, and prices thus calculated; whereas no one offers evidence of the actual date of replacement. Of what merit are reproductions of plants calculated in 1929 or 1932 if each plant's contents will be replaced in different, but not predictable, future years? Although the Supreme Court wishes to forecast "probable future values," a means has not yet been devised for doing it.

Surely this depression should awaken all concerned interests to the futility of using reproduction costs in utility valuations unless, as conjecturally noted above, (1) the regulated insist that this valuation method be evidenced because thereby regulation is made less effective or (2) some questionable, even incalculable, average of prices is to be used.

COMMONLY commissions and courts have declared that a utility's rate of return should be adjusted in accordance with prevailing business conditions. As observed in 1933 by the New York commission the difference in net returns of electric, telephone, and gas companies compared to the net profits

of unregulated businesses ". . . in the last three years has been so great as to make practically all nonutility enterprises envy these utilities."[14] During this depression the rate of return has been commonly reduced by state commissions—usually to 6 per cent—and the usual justification for the lowered return is greatly reduced earnings of other, but unregulated, businesses. Another commission argument for rate of return reductions was the increased purchasing power of interest and dividend payments as prices of goods declined.

Before turning to consideration of commission opinions on this point, the comparison of earnings, shown in table below, of regulated and unregulated industries will provide factual background for the discussion.

WHEN a gas and electric company sought in 1934 a higher return than 6.3 per cent, the average cost of the company's capital, and after the company presented the highest rate base in its history, the Illinois commission made these incisive comments on depression rate of return allowances:[15]

> If the same rate of return were allowed during periods of economic distress and low prices as during periods of prosperity and high prices . . . then stockholders would actually profit by the world-wide depression. Such a policy would be unfair to the ratepayers who have suffered drastic reductions in their incomes, but for the stockholders it would mean that their *real return* in bad times would be greater than the return in good times.

Similarly, Washington's Department of Public Works abandons the conventional method of public utility rate fixation in the following terms:[16]

> This method, although perfectly proper during normal times, would be entirely unworkable under the present conditions. All of the ordinary standards of value have shifted and it is impossible to designate any certain figures as a reasonable rate of return . . . In these times, the most any business can hope for is revenue sufficient to avoid insolvency . . .

Contrary to this regulatory body's opinion it is not readily apparent that shifting of "ordinary standards of value" necessitates a new regulation procedure. Surely, the regulatory process is not solely a technique for prosperity and sunshine. Even though revenue may decline during a depression, at least the outline of the customary procedure remains.

THE Arkansas Fact Finding Tribunal in the succeeding words

TABLE II

PER CENT NET PROFITS TO NET WORTH IN SELECTED INDUSTRIES*

	1929	*1930*	*1931*	*1932*	*1933*	*1934*	*1935*
Electricity & Gas	10.6%	9.3%	8.0%	6.4%	5.5%	5.1%	5.7%
Telephone & Teleg.†	11.2	9.7	6.8	4.8	4.6	3.8	4.7
Street Railways			2.0	0.3	0.2	‡	—1.0
Total Mfg. & Trading	13.5	6.7	2.5	—0.4	2.6	4.3	6.7
Selected Mfg.							
Agric. Implements	14.3	7.3	—1.2	—4.6	—2.3	0.5	7.7
Automobiles	22.0	9.2	5.5	—2.4	7.4	6.7	16.2
Iron & Steel	11.2	4.6	—0.4	—4.1	—1.9	—0.5	1.3
Petroleum	13.1	5.2	—0.3	1.1	0.7	2.0	4.4
Tobacco	14.6	14.4	14.4	13.4	8.3	10.4	10.6

*Compiled from National City Bank Letter.
†Only Bell Telephone System, 1929-33.
‡Less than 1/10 of 1%.

cautions against lowering a utility's return too drastically during a depression:[17]

> The tribunal takes judicial notice of the effect the long economic depression has had upon dividends of corporations generally. It does not think that a utility is entitled to the high returns made by nonregulated or highly speculative enterprises during periods of great prosperity. Neither does it subscribe to the theory that the utility's return during periods of business adversity should be reduced to the extent that the earnings of private corporations have been impaired.

Similarly, the California commission observed that regulation of the return must ". . . guard against unreasonable rates and protect future financing . . ." and that the "comparable business" principle of return fixation ". . . cannot be taken too literally; otherwise confiscation and bankruptcy would follow in a time like the present."[18] Further, the California commission proudly adds, that the utility company feared departure from the commission's usual policy, especially on the rate of return rather than valuation policy.

The New York commission, in holding a 6+ per cent return adequate, does not believe it ". . . fair that rates should be fixed in the midst of a depression . . . in order that a company may earn a rate of return which would be fair and reasonable under normal conditions."[19] Moreover, this commission asserted that the street railway ought to bear a part of the depression burden. Elsewhere a 6 per cent or slightly higher return was deemed adequate for periods of economic distress.[20] Several commissions permitted a return of 7 per cent,[21] whereas in several other instances a return of 5½ per cent or slightly less was deemed nonconfiscatory.[22] A temporary rate reduction ordered by the Wisconsin commission based, for example, on payment of all interest plus only a 6 per cent dividend on common stock was considered "reasonable and nonconfiscatory."[23]

ADHERENCE to U. S. Supreme Court opinion that a utility is entitled to a return ". . . equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings . . . attended by corresponding risks and uncertainties . . ." is legal justification for a lowered return during a depression.[24] Presumably, however, the return, in conformance with the Arkansas and California opinions, for a regulated industry would not be lowered to zero or a deficit during a depression or raised to 15 per cent or 20 per cent during prosperous times because unregulated industries have received such returns. It may be incidentally observed, however, that the absence of sharp competitive conflict among utilities, save railroads, makes it difficult to find other industries with ". . . corresponding risks and uncertainties."

Because utility companies compete with other and unregulated businesses for their capital and because unregulated industries suffered drastic reductions in their earnings during the depression, the rate of return may be properly reduced during times of economic chaos. But the return, as observed above, should not be cut so severely that insolvency exists. A moderate decrease in the return, particularly a lessening of common stock earnings per share, will not, however, damage the relative financial standing of utility securities. When the measure of a "fair" return may be broadly

stated as the ability to attract capital to public utility enterprises on favorable terms, assuming that more capital is needed, a reduction in the return is justifiable during times of deficits and low prices for other industries.

BUT it may be difficult in adverse times, while many lenders are fearful of complete economic chaos and are hoarding (or withholding) loanable funds, to borrow on favorable terms even though a utility's earnings be excellent. Evidence of this extreme disturbance of financial markets may be factually observed in lowered market prices between 1931 and 1934 for senior issue, safe bonds of regulated and unregulated companies with adequate earnings or high margins of safety. Moreover, utilities, except chiefly for refunding, have not needed much capital during this depression. All of this is succinctly summarized by the Wisconsin commission:[25]

> The commission does not believe that the current cost of debt and preferred stock capital in an obviously unsettled financial market should be controlling in determining a reasonable rate of return, especially when the utility in question has no need for entering the current capital market. Counsel for the company also overlooks the consideration that in a time of acute economic depression a reasonable return may be no more than a nonconfiscatory return.

The troubles encountered in utility valuation have not been lessened by new environment—a severe depression—for utility regulation. If anything, this thorny problem has become more thorny. Instead of improving the utility valuation process, the Supreme Court opinion that "sudden fluctuations" of prices may not be justification for a rate base reduction has been a recently added barrier to prevailing valuation impediments.

BEWILDERED commissions have responded to depression conditions with dissimilar decisions: some did not recognize the sharp decline in construction costs, others thought this downward trend should be considered; a few have fixed the rate base substantially above original cost; some measure reproduction cost with "spot" prices, while still others use an average of several years' prices. The total return has been lowered principally by decreasing the allowable rate of return. Measurement of a fair return in part by the earnings of "comparable business," even though it may be difficult to find such likenesses, has been the principal legal support for these decreases.

Citations

[1] *Re* Oklahoma Nat. Gas Corp. P.U.R. 1931B, 470.

[2] *Re* Rates and Rate Structures, P.U.R. 1933E, 451.

[3] *Re* Wisconsin Teleph. Co. P.U.R. 1933B, 412, 414.

[4] *Re* Michigan Bell Teleph. Co. (1935) 10 P.U.R.(N.S.) 149.

[5] *Re* Pacific Gas & E. Co. (1933) 1 P.U.R. (N.S.) 1.

[6] San Diego *v.* San Diego Consol. Gas & E. Co. (1935) 7 P.U.R.(N.S.) 443; see also *Re* Potomac Edison Co. (Md. 1932) P.U.R. 1933B, 6; *Re* Conowingo Power Co. (Md. 1935) 10 P.U.R.(N.S.) 353.

[7] Los Angeles Gas & E. Corp. *v.* California R. Commission, 289 U. S. 287, 77 L. ed. 1180, P.U.R. 1933C, 229, 244.

[8] West *v.* Chesapeake & P. Teleph. Co. 295 U. S. 662, 79 L. ed. 1640, 8 P.U.R.(N.S.) 433, 439. (Italics are mine.)

[9] *Re* Southern Bell Teleph. & Teleg. Co. (S. C.) P.U.R. 1933B, 181; *Re.* Ohio Bell Teleph. Co. (Ohio, 1934) 2 P.U.R.(N.S.) 113.

[10] Commerce Commission *v.* Public Service Co. (Ill.) 4 P.U.R.(N.S.) 1; *Re* Home Gas & E. Co. (Colo. 1934) 5 P.U.R.(N.S.) 107. See also Elko-Lamoille Power Co. *v.* Nevada Pub. Service Commission (1932) 1 F. Supp. 790, P.U.R. 1933B, 191.

[11] Department of Public Service *v.* Grays Harbor R. & Light Co. (1936) 12 P.U.R. (N.S.) 178. See also Public Service Commission *v.* Billings Gas Co. (Mont.) P.U.R. 1933D, 337; Department of Public Works *v.* Washington Water Power Co. (Wash. 1934) 4 P.U.R.(N.S.) 363.

[12] Public Service Commission *v.* St. Joseph R. Light Heat & P. Co. (1936) 14 P.U.R. (N.S.) 113.

[13] Department of Public Service *v.* Grays Harbor R. & Light Co. (Wash. 1936) 12 P.U.R.(N.S.) 178.

[14] *Re* Rates and Rate Structures, P.U.R. 1933E, 451.

[15] Commerce Commission *v.* Public Service Co. (1934) 4 P.U.R.(N.S.) 1, 72. (Italics are mine.)

[16] Department of Public Works *v.* West Coast Teleph. Co. (1932) P.U.R. 1933A, 487, 491.

[17] Stuttgart *v.* Arkansas Power & Light Co. (1934) 5 P.U.R.(N.S.) 161, 175.

[18] *Re* Pacific Gas & E. Co. (1933) 1 P.U.R. (N.S.) 1. See also *Re* Wisconsin Teleph. Co. (Wis.) P.U.R. 1932D, 173, 273.

[19] *Re* Yonkers R. Co. (1932) P.U.R. 1933B, 61, 91.

[20] *Re* Indianapolis Water Co. (Ind. 1932) P.U.R. 1933B, 290; *Re* Broad River Power Co. (S.C.) P.U.R. 1933C, 351; San Francisco *v.* Great Western Power Co. (Cal. 1932) P.U.R. 1933C, 487; *Re* Utility Rates During Economic Emergency (Pa. 1934) 3 P.U.R.(N.S.) 123; *Re* Bronx Gas & E. Co. (N.Y. 1934) 6 P.U.R.(N.S.) 198; *Re* Columbus Gas & Fuel Co. (Ohio, 1932) P.U.R. 1933A, 337; Elko-Lamoille Power Co. *v.* Nevada Pub. Service Commission (1932) 1 F. Supp. 790, P.U.R. 1933B, 191.

[21] *Re* Cities Service Co. (Kan. 1932) P.U.R. 1933A, 113; *Re* Southern Bell Teleph. & Teleg. Co. (S. C.) P.U.R. 1933B, 181.

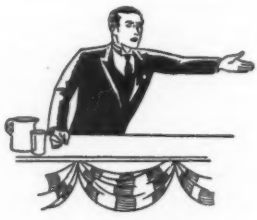
[22] Kankakee Water Co. *v.* Gilbert (U. S. Dist. Ct.) P.U.R. 1933B, 145; *Re* Ohio Bell Teleph. Co. (Ohio, 1934) 2 P.U.R. (N.S.) 113.

[23] Wauwatosa *v.* Wauwatosa Gas Co. P.U.R.1933D, 489.

[24] Bluefield Water Works & Improv. Co. *v.* West Virginia Pub. Service Commission, 262 U. S. 679, 67 L. ed. 1176, P.U.R. 1923D, 11, 20.

[25] Marinette *v.* City Water Co. (1934) 9 P.U.R.(N.S.) 308, 315.

The second and concluding part of this article will appear in the next issue of PUBLIC UTILITIES FORTNIGHTLY, *July 8, 1937, in which the depression rate situation will be discussed.*



The Clamorers

"THERE are," said Mr. Webster in 1833, "persons who constantly clamor. They complain of oppression, speculation, and the pernicious influence of accumulated wealth. They cry out loudly against all banks and corporations and all means by which small capitalists become united in order to produce important and beneficial results. They carry on mad hostility against all established institutions. They would choke the fountain of industry and dry all streams. In a country of unbounded liberty, they clamor against oppression. In a country of perfect equality, they would move heaven and earth against privilege and monopoly. In a country where property is more evenly divided than anywhere else, they rend the air shouting about agrarian doctrines. In a country where wages of labor are high beyond parallel, they would teach the laborer that he is but an oppressed slave."

Can Utility Rate Regulation Be Made Effective?

The author, while suggesting commission procedural improvements or reform, doubts the effectiveness of this type of utility control and thinks public ownership is bound to come.

By JOHN BAUER

CRITICISM of state regulation of public utilities has centered largely upon valuation procedure for rate making. A commission must permit a company to obtain a "fair return" on the "fair value" of its properties used in public service. Its principal task is the formal determination of "fair value" or rate base. This has been greatly complicated by court decisions and impeded by other conditions so that it has become virtually unmanageable and is primarily responsible for extensive breakdown of regulation.

Under the law of the land as established by the Supreme Court of the United States in a series of cases since 1922, "fair value" must be reached practically through physical appraisal on the basis of reproduction cost less depreciation. This requires, first, an inventory or count of the various kinds of property units; second, establishment of unit prices according to prevailing construction costs; third, the application of unit prices to the inventory to produce present cost new of the properties; and, fourth, the determination of depreciation to be deducted from cost new to show present "fair value." This must finally reflect the going concern, and must include also proper allowance for working capital.

To establish the facts for legal proof of "fair value" on the basis of reproduction cost less depreciation requires tremendous effort, time, and expense. Furthermore, when a determination has once been made it soon begins to lose legal force as conditions change, especially with shifts in price levels and methods of construction. After a lapse of five years, it seldom retains controlling probative significance. Practically every attempt at rate revision requires redetermination, and so raises anew all the difficulties encountered in an appraisal affecting adverse public and private interests.

The vital objection to reproduction cost less depreciation as rate base is its lack of administrability. Based upon appraisal, it depends primarily upon calculations and estimates made by experts who are engaged either by the utility or by the commission, or by a municipality or by a consumer group. They are employed by affected parties, and so are inevitably prone to support high or low results according to employment. They are not dealing with exact facts that can be readily ascertained and definitely applied to the particular situation. Under these circumstances there is inevitable conflict of interest which produces drawn-out proceedings, undue expense, unsatisfactory results, and protracted litigation.

To eliminate basic conflict of interest and to make rate control effective requires for every utility a definite rate base which rests upon exact facts and is not subject to dispute by the interested parties. In my judgment, the adoption of such a rate base is essential, if rate regulation is to be made a satisfactory instrument of public policy. It must represent definite rights, exact measurements, and regular administrability. Anything short of such a standard will leave regulation based on guesswork, and will work toward disruption and abandonment of the system.

WHEN reproduction cost in its broad sense had been virtually established by the Supreme Court as the primary determinant of "fair value," efforts were made by commissions and others to avoid repeated appraisals through application of price index numbers. These could be applied to a prior valuation and to subsequent annual property additions, and so produce an equivalent result in terms of prices at the time of the rate inquiry. They would obviate the detailed steps of reappraisal and avoid conflict of interest in the valuation procedure.

The use of index numbers as a means of rate base adjustment was, of course, challenged as soon as an interested party felt the financial pinch by the results. Its public advantage appeared especially during the depression, when prices had fallen greatly as had purchasing power of consumers, when prompt rate reductions with changing conditions were important, and when funds for regular rate cases were not available. It produced quick cuts in valuations in line with general decline in prices. The companies naturally attacked the method, because it worked, and it came for adjudication before the Supreme Court in 1935 in the Chesapeake and Potomac telephone case involving rate revisions ordered for Baltimore by the Maryland Public Service Commission. Starting with an earlier appraisal and with records of annual additions and retirements thereafter, the commission applied price index numbers to produce an equivalent valuation in terms of prices at the time of the inquiry. It used preponderantly the United States Labor Bureau figures of general wholesale prices, which are widely accepted as reflecting the shift in the purchasing power of money. It considered also, however, other index numbers, especially construction indices which include more directly than general indices the kind of properties under immediate consideration.

THE Supreme Court decided against the index number method and clearly implied that the determination of "fair value" must be based directly upon physical appraisal, with inventory, unit prices, and depreciation to reflect conditions at the time of the rate adjustment. The indirect method used by the commission to reach "fair value" could not be substituted for the direct process of appraisal. While there may be disagreement as to the extent that index numbers are now precluded, the position of the Supreme Court seems quite clear that physical appraisal is the rule. There may be no rigid and precise limitation, but legally valid determination of "fair value" cannot depart far from standard valuation methods.

If this view is correct, the question arises what can practically be done if rate regulation is not to be frustrated by the difficulties of the valuation process. The realistic answer is far from satisfactory. Unless a fixed rate base is legally established and maintained, every serious effort at rate adjustment is bound to arouse sharp conflicts of interest and produce complications. What is worse, however, is that systematic efforts to make needed rate changes will not be exerted and rate control will go largely by default.

There will be, of course, instances of serious efforts to meet the difficulties of the present regulatory set-up. For the most part, however, I doubt whether positive measures will be much more extensively developed, and I believe that regulation will continue to flounder much as it has in the past. Nevertheless, some things can and probably will be done in spite of difficulties.

FIRST, I shall point to the distinct accomplishment of the so-called Washington plan. This can be applied to other municipalities and to states, if there is clear realization of what is involved and if intelligent action is taken. For over ten years the public utilities commission of the District of Columbia has administered a sliding-scale method of making annual rate adjustment for the Potomac Electric Power Company, on the basis of a fixed rate base and a standard rate of return. It has cut through the valuation tangle by starting with an initial appraisal and subsequently adding to the rate base only as net additional investments are made.

At the close of each year the commission makes a survey of the year's operations and orders a reduction in rates equal to 50 per cent of the excess earnings above the standard return allowable on the regular rate base. By

¶ "THE *commissions, unfortunately, have come to be primarily courts and not directly fact-finding and administrative bodies. As courts, they receive testimony and decide on the basis of formal records. Consequently, when a case has been fully presented on behalf of the company, and if only words have been produced on the consumer side, there is little choice in the decision, which is based on the record and not on declamation.*"

this method it has succeeded since 1924 in reducing rates from 10 cents per kilowatt hour to a top rate of 3.9 cents for residential use, with still lower rates for the higher brackets of consumption. Through systematic rate reductions it has succeeded in stimulating tremendous increase in average consumption, and has enabled the company to obtain greater returns, notwithstanding the slashing of rates. It has pushed the policy of developing high consumption at low rates, against the more prevalent course of maintaining high rates with low average consumption.

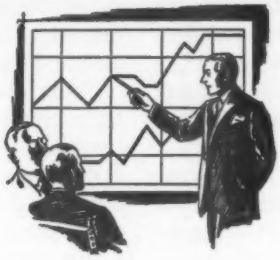
THE sliding-scale arrangement particularly has made considerable public appeal, and it has been embodied as a general objective in the new Pennsylvania regulatory statute recently adopted. The pivotal feature of the Washington plan, however, is a fixed rate base, which eliminates conflict over valuation. If the new Pennsylvania commission relies merely upon sliding-scale appeal, and does not establish a rate base set-up like that of Washington, its efforts are likely to be disappointing. Except in the Washington instance, sliding-scale arrangements have never worked satisfactorily from the public standpoint, for lack of proper valuation basis. The requisite of any effective regulatory program is systematic administration. If Pennsylvania or any other state first provides an administrable rate base, it can bring about reasonably effective rate regulation either with or without sliding-scale provisions, but without a fixed rate base its efforts will be largely frustrated by the difficulties of administration.

The application of the Washington plan, or the institution of a fixed rate base so that rate adjustments can be systematically carried out, will be much more difficult for a large state like Pennsylvania with its numerous utilities and varied financial interests than for Washington, where the commission had to deal with a single city and a single company. For successful statewide application, fundamental revision of the system of regulation is essential along the lines presented by me in previous articles in the FORTNIGHTLY.[1] While the probability of such development is not great, it should not be discarded entirely as beyond the realm of attainability.

THE adoption of the Washington plan, however, has considerable possibility by individual municipalities which have to deal with single companies and can adopt policies and procedure without regard to other communities and companies within the state. Furthermore, there is increasing tendency for municipal officials to assume outright responsibility for obtaining reasonable utility rates through their own direct efforts. This exists to some extent in every important city. If rates are too high complaint reaches the municipal authorities first. Discontent tends to focus on city hall and to make it responsible to the community at large. This force has always existed and is likely to increase.

Personally, I think responsibility for proper rates should be placed upon municipal officials. They should act collectively in the interest of all con-

[1] Cf. Part III, "Public Utility Valuation for Purposes of Rate Control," Bauer and Gold. MacMillan Company.



Vital Objection to Reproduction Cost Basis

"THE vital objection to reproduction cost less depreciation as rate base is its lack of administrability. Based upon appraisal, it depends primarily upon calculations and estimates made by experts who are engaged either by the utility or by the commission, or by a municipality or by a consumer group. They are employed by affected parties, and so are inevitably prone to support high or low results according to employment."

sumers in the community. If they feel this responsibility and carry it out intelligently, they can obtain substantial results, notwithstanding the difficulties of prevailing rate procedure. The larger the city, the better its position to assume the responsibility. If it is clear as to the facts and issues involved, and if it has developed a long-run policy, it can bring sufficient pressure upon a company to obtain significant rate adjustments without prohibitive cost and without strangling delays. It can obtain reasonable preparation and presentation in formal cases before commissions and courts, with substantial success. While it may not get in its first effort the full rate reduction to which the community is entitled, it can press for successive adjustments and within a moderate period reach at least an approximation of reasonable rates. All this requires planning and efforts, including considerable hard-boiled action.

HERETOFORE municipalities have not been overly successful in their efforts to obtain reasonable rates, either in their direct dealing with companies or in their participation in rate cases. Their trouble has been mostly lack of adequate preparation. Municipal attorneys before commissions and courts have contented themselves usually with casual cross-examination and with superficial stabbing for points.

There have been few instances in which cities have taken full responsibility for consumers and have prepared and presented systematically every important element in the case. In contrast the companies usually appear with great meticulousness of preparation, and often at staggering expense. Their object may perhaps be two-fold:

not only to prepare thoroughly so that their claims will stand, but also to frighten off municipalities and others from undertaking rate cases. The latter result has been extensively realized, even if the purpose has not been consciously held.

The prevalent feeling of futility has, unfortunately, considerable justification, but it nevertheless exaggerates the situation. The expense of preparing and presenting a city's case can be kept within moderate limits, and there is no justification for the large expenditures that are commonly assumed to be necessary. The cost and success depend upon careful planning, and upon clear analysis of what is involved. In most instances, there is little justification of fundamental distrust of the commissions; facts are usually recognized when properly presented from the public standpoint. While commissions sometimes seem predisposed to assume that the companies are right and the public wrong, this attitude has been brought about probably more by the common failure of municipal representatives to present anything significant than by company influences which abound more or less constantly through commission offices.

THE commissions, unfortunately, have come to be primarily courts and not directly fact-finding and administrative bodies. As courts, they receive testimony and decide on the basis of formal records. Consequently, when a case has been fully presented on behalf of the company, and if only words have been produced on the consumer side, there is little choice in the decision, which is based on the record and not on declamation. If, however, a city's case has been properly prepared, the situation is very different; the results are likely to be more favorable to the public.

While the commissions were originally created to represent the public, they have largely side-stepped this outright responsibility and have assumed the judicial rôle. This has been brought about partly through legislative action which imposes a dual or treble function, partly by court decisions on valuation procedure, partly by the failure of the legislatures to provide sufficient funds; and it is easier to sit in the dignity of a judicial body, to receive evidence and to decide on the record, than to meet head-on the responsibility of fixing reasonable rates and performing all the work incident to such determination.

FURTHERMORE, when a commission has been loaded with ever-increasing duties, and at the same time has been subjected to reduction in appropriations for its activities, the inevitable recourse is to turn judicial and to let the representative and administrative functions go by the board. This has happened extensively throughout the country; consequently the public side has been represented most inadequately and rate regulation has gone largely by default.

Under these circumstances, responsibility should be placed upon municipalities to represent the public. If this were definitely accepted, and if it were intelligently carried out, it would lead to proper preparation and would produce much more satisfactory results than have been obtained in the past. When a city has once made a thorough survey and has obtained moderate rate

adjustments, it can readily obtain thereafter annual analysis at slight expense, and can thus bring more or less continuous pressure for rate revision.

One trouble has been spasmodic action in the past. When a rate case has been completed and when publicity for officials has subsided, there has usually been a let-down and indefinite discontinuance of attention to further developments. If rates are to be kept reasonable, they must be placed under constant surveillance; there must be regular attention to the needs and possibilities of adjustment. This can be accomplished by acceptance of positive municipal responsibility and by establishment of regular administrative means for the purpose.

FURTHERMORE, in view of the inherent judicial function of the commissions and the inevitable difficulty of representing the public positively while at the same time acting as a court and deciding upon the record, there would probably be advantage in conveying the representative function outright to the cities and limiting the commissions to the judicial rôle.

The best course might be to turn direct rate-making powers over to the municipalities and then leave the commissions just as courts to pass on appeal upon the reasonableness of the rates fixed by local legislative action. Through such division of responsibility, rate making in first instance would be purely legislative. While the rates, of course, would have to be reasonable, the local legislative body would not be shackled by judicial procedure in adopting rate ordinances. Upon appeal the burden of proof would rest upon the company to show that the rates fixed by local legislation are confiscatory; the municipality would be responsible to prepare and present the public side; and the commission would then act purely as a court in deciding upon the record.

A serious difficulty is the restriction imposed upon commissions by their judicial responsibilities. While they act legislatively, they are nevertheless courts and must proceed in judicial manner. It is primarily the character of the judicial hearings which results in protracted hearings and clogging procedure. Rate fixing in first instance should be freed from judicial restraint, and the best course would probably be to lodge the legislative power with the municipalities and to leave the commissions as courts. There is, however, the alternative possibility of making the commissions purely legislative agencies, eliminating their judicial duties, and then leaving to the courts the passing upon commission action. Whatever the method, I believe there should be separation of legislative and judicial functions; comingling inevitably promotes confusion and nonaction. And

¶ *". . . in view of the inherent judicial function of the commissions and the inevitable difficulty of representing the public positively while at the same time acting as a court and deciding upon the record, there would probably be advantage in conveying the representative function outright to the cities and limiting the commissions to the judicial rôle."*

separation can be readily attained within the framework of present legal standards.

Apart from placing representative responsibility upon municipalities and separating the legislative and judicial functions, the commissions themselves should not be wholly helpless. With pressure for rate revisions, and with growing criticism and distrust on the part of the public, they may well bestir themselves to act beyond their judicial domain. They have, of course, the power and the duty to represent the public legislatively even though they are expected to act simultaneously in judicial capacity. There have been times when the representative function dominated, and some commissions may consider seriously what can be done and proceed to do it. I shall suggest some rather simple things that appear readily attainable.

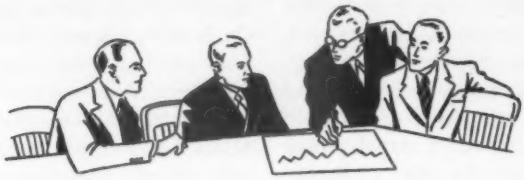
If physical appraisal is necessary, and if rate base adjustments cannot be made through price index numbers, at least not when substantial shifts in prices and costs have taken place, the commissions can nevertheless standardize valuation procedure and can adopt sensible methods to meet the judicial standards fixed by the Supreme Court. After all, they are not wholly strait-jacketed. They do remain fact finding bodies, and have scope for initiative, direction, and judgment. If they exert reasonably their power of inquiry, their fact-finding discretion, and their right to direct proceedings, they can greatly simplify, standardize, expedite, and economize all the important processes of valuation and rate making.

To make such practical adjustments to meet reasonably the judicial standards of rate procedure requires clear thinking by commissions, resoluteness, keen sense of public interest, detailed planning, and systematic administration. It would cost considerable money, probably more than the legislatures will appropriate, but it could be carried out within nonprohibitive limits. It would certainly pay huge dividends from the public standpoint.

What can be done specifically is, first, the development of standardized inventory classification which can be used consistently not only by a particular commission but by all commissions throughout the country. A serious difficulty encountered in rate cases is the diversity of classification or itemization of property units for which reproduction cost prices are presented. There is not only the difference as to what is to be taken as the unit for individual pricing, but there is also minuteness of subdivision which results in multiplication of effort and possibilities of disagreement.

Instances might be cited at great length to show the ridiculous diversity and minuteness of property units in appraisals placed before commissions. What is necessary is thoroughgoing standardization so that the same units will be recognized as definite categories in all cases, and each unit should embody the largest practical combination of integral parts. The different kinds of units to be itemized should be limited within the common sense of classification.

Every commission should establish a simplified and standard inventory classification for every type of utility under



Coöperation between Commissions

"In all processes of establishing and maintaining a rate base, there should be extensive coöperation between the commissions of the different states. There should be pooling of facts and experience among commissions so that they could all benefit from each other. The Federal commissions, especially the Federal Power Commission, might well lead in bringing about worth-while coöperation."

its jurisdiction. Furthermore, there should be coöperation between commissions so that the same standards would be followed generally throughout the country. Each company should then be required to file an inventory in accordance with the classification, and subsequently to report the changes at the close of every year. There would then be regularly available for every company the underlying facts that enter into an appraisal.

Second, with a simplified and standardized inventory, each commission could establish standardized unit prices that can be readily applied to the inventories. It could then apply them to all properties of like kind under substantially similar conditions. Such application is practicable with a standardized inventory, but not with the variable groupings with which commissions are currently confronted.

In the initial preparation of unit prices, detailed consideration must be given to the establishment of relative labor and materials content and costs. When, however, these basic matters have once been ascertained, they can then be rescrutinized periodically and adjusted to changing conditions. This requires experienced and intelligent cost analysis but is manageable. When proper adjustments have been made, the results can be applied to the inventories filed with the commissions. The process of revaluation to determine cost new of the properties at any given time would not be prohibitive, and conflict of interest would be greatly reduced because of systematic determination of cost elements.

Third, the determination of depreciation to be deducted from cost new could be simplified and made manageable if the commissions would apply consistently and vigorously the underlying facts of depreciation as they affect both operating costs and property valuations. If they establish clear and

proper standards for the charges to operating expenses to cover depreciation, they could insist upon the same relative basis for determining the deduction of depreciation in establishing the rate base. What is depreciation currently for operating expenses is also depreciation cumulatively for rate base purposes. Insistence upon consistent application of accounting principles can be supported by forceful analysis and by accumulation of appropriate financial and operating data.

In all processes of establishing and maintaining a rate base, there should be extensive coöperation between the commissions of the different states. There should be pooling of facts and experience among commissions so that they could all benefit from each other. The Federal commissions, especially the Federal Power Commission, might well lead in bringing about worth-while coöperation. Continuous cost studies could be made of property construction and installations in different parts of the country and under varying conditions.

EVERY commission should strive to establish a definite valuation for each company in accordance with the standard inventory, and should then make such periodical adjustments as may appear necessary. The initial determination would, of course, require considerable effort. If, however, practical methods are employed for determination of unit prices and depreciation, reasonably fair results can be reached without prohibitive expense and time. Thereafter, additions and retirements can be readily taken into account and a fairly definite rate base maintained.

Ordinarily there are no rapid shifts in prices and other conditions so that the initial appraisal could be continued for an indefinite period of years. Furthermore, if annual rate adjustments are made in accordance with established rate base, the very continuation process would avoid sharp issues and would postpone the time when redetermination would be necessary on the basis of revised unit prices.

Where thoroughgoing initial appraisal is not practicable, the commission could nevertheless make tentative or approximate findings which would come moderately close to reasonable figures and would serve as rate base until thorough determinations are made. Where, for example, the book value of a particular electric property comes to $600 per customer, the excess seems obvious and adjustment could be made upon a per customer basis which comes more nearly within common sense. The commission should have available at least sufficient technical talent to establish such practical measurements for rate revision. It should, however, strive to obtain thoroughgoing valuation for every company, which could then be kept up-to-date and periodically revised according to change in conditions.

BESIDES maintaining practically a continuous rate base, the commission should also make annual survey for each company of revenues and operating costs so as to determine with reasonable precision the extent that rate revisions should be made. It should analyze the operating costs sufficiently so as not to continue unwarranted charges to the public, and to include all expenses which should be regularly

provided for. This applies particularly to depreciation. The commission should not permit a company to continue indefinitely either inadequate or excessive depreciation charges, and it should insist upon correlation of the annual charges to the accumulated deduction for the determination of rate base.

Annual surveys and determinations are essential. When basic facts, policy, and procedure have once been established, annual analysis can be readily made without great cost. Such regular inquiry would produce gradual modification in rates and would avoid the sharp conflicts which appear when rate cases are undertaken spasmodically after conditions have reached a critical state. It can be carried out quite informally as a matter of administration, without strangling judicial procedure, if the basic facts appear with reasonable definiteness, and when a positive program has once been adopted.

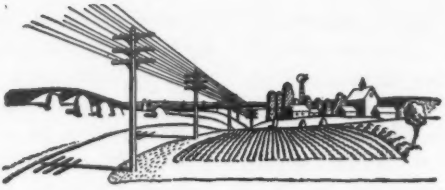
THESE are all things that might be done if the commissions have the power, the duties, the means, and the zeal. These requisites, unfortunately, are mostly beyond practical reach for various reasons. In conclusion, I must say frankly that I do not expect great advance to place regulation upon a manageable basis. There will be instances of municipal authorities acting moderately upon their responsibilities to consumers, but they will probably not be numerous and will remain largely spasmodic. While doubtless some commissions will strive to readjust their procedure more or less sensibly, they will be variously impeded and their zeal will wear out against visible and hidden obstacles.

Personally, I have come to doubt the possibility of working out and establishing a system of effective regulation of privately owned and operated utilities on lines of positive public interest and objective. I feel certain that sooner or later, but not very fast, public ownership and operation in one form or another will extensively replace private ownership and operation. This appears to be the tendency and the inevitable result. It will be hastened by the strangling judicial standards imposed upon regulation and by the failure to make adjustments in regulatory procedure.

What can be done is one thing, what is likely to be done is quite another. By speaking frankly and bluntly I may succeed in placing a feeble challenge before commissions and before all those groups which are fearful or distrustful of public ownership. I venture to predict that if regulation cannot be made reasonably or halfway effective, it will eventually pass to the institutional junk pile and will be displaced by more appropriate organization for public purposes. While this development is not likely to be precipitate, it has inherent potentialities for the discard of the present system much more rapidly than is commonly assumed by those who look complacently upon prevailing utility organization, management, and public control.

¶ "WHEN *the management of a company tells the country that its subsidiaries are going to the bowwows, it is too much to expect any investor to think well of those companies.*"

—DAVID E. LILIENTHAL,
Director, Tennessee Valley Authority.



Story of Rural Electrification in North Carolina

Over six thousand miles of lines constructed, under construction, or authorized in a period of thirty months.

By DAVID S. WEAVER

HEAD OF DEPARTMENT OF AGRICULTURAL ENGINEERS, NORTH CAROLINA STATE COLLEGE

HISTORY reveals that depressions bring about conditions from which emerge great social reforms. Perhaps one of the most outstanding contributions to the raising of living standards which has come about as an aftermath of the rapidly retreating depression is the tremendous expansion in the network of electric lines carrying service to the rural people.

This article represents an attempt to piece together those fragments of facts with which to record the amazing progress of the Rural Electrification Program in North Carolina in the past thirty months.

While many people and organizations have made their contributions in forwarding the movement, its success to date is essentially due to the unbounded faith and enthusiasm of Senator Dudley Bagley of Currituck county. Guided by a clear vision of the blessings which electricity could bring to the rural people of the state he has labored unceasingly to attain his goal. Obstacles, seemingly insurmountable, have been overcome through his persistent effort; and the thirty thousand farm families in whose homes electricity dispels the darkness of the night have given willing testimony as to the worthwhileness of the movement. These homes and the thousands yet to be served will stand as living monuments to him. Perhaps no other movement for the betterment of rural life in recent years has so gripped the imagination of the rural people. Whole counties, having despaired of ever obtaining electric service, have awakened to the possibility of its attainment and many are beginning to enjoy the comfort and luxury which it brings. Rural leaders everywhere express the thought that nothing in their experience has so quickened the pulse of their communities as the coming of electricity.

The writer has been given credit for taking the first practical steps in bringing about the conditions which are so favorable to the spreading of a network of rural lines to every community where it is economically feasible to do

so. Having charge of the engineering features of a complete survey of ten North Carolina counties in connection with the Federal Housing Survey, he was impressed with the interest shown in rural electrification by the 28,000 families contacted. To verify his belief that rural electrification could be made a satisfactory relief project he secured $700 with which to conduct an intensive survey in three selected counties. With this survey data tucked under his arm he called upon Governor Ehringhaus.

THE governor, having already expressed his interest in raising the standard of living of the rural people in North Carolina, in an address to the state grange some time previous, gave a willing promise to see what could be done. Calling upon that great leader of the farmers, Dr. Clarence Poe, editor of *The Progressive Farmer* for counsel, there was worked out a plan whereby Mrs. Thomas O'Berry, North Carolina's Emergency Relief Administrator, would approve a statewide Rural Electrification Survey Project. This plan was not immediately accorded a favorable reception in Washington, but persistent pressure for its approval brought results and it was soon being used as a model by many states, and undoubtedly had its effect for formulating the national policy which later led to the creation of the Rural Electrification Administration.

On May 31, 1934, the governor appointed the following agricultural leaders as a committee on Rural Electrification: Chairman, Dr. Clarence E. Poe; Mrs. Jane S. McKimmon, state home demonstration leader; Mrs. Gordon Reid, state president of home demonstration clubs; W. Kerr Scott, past master, state grange; E. S. Vanatta, master, state grange; Dudley Bagley, state senator from Currituck county; Dr. Howard Odum of Chapel Hill; E. B. Jeffries, chairman state highway commission; J. L. Horne, editor, Rocky Mount *Telegram;* S. T. Henry, member TVA; T. E. Browne, director of vocational education; C. A. Sheffield of State College extension service; and J. E. Tiddy, agricultural teacher of Red Springs.

ON June 1st, the committee met and selected the writer as director of a statewide survey. As head of the department of agricultural engineering at State College he was regarded as being well qualified because of his knowledge of the uses of electric power on the farm, and his appreciation of the part electricity is destined to play in agriculture of the future.

The purpose of the survey was to determine: (1) The location of existing distribution lines serving rural customers; (2) The desire on the part of farm families for electric service; (3) The location of areas where the construction of rural lines would prove economically feasible.

Last, but by no means least, a campaign was planned to stimulate thought on the subject in order to create a universal demand which would bring action on the part of the legislative bodies, public officials, power companies, and municipalities. That this was successful was clearly demonstrated by the fact that the original estimates of the extent of the survey had to be repeatedly revised upward as time elapsed. The original 135 communities signifying interest in the pro-

gram increased to 1,011 with 32,058 prospective customers.

A fine part was played by the newspapers, farm press, radio stations, county and home agents, and vocational agricultural teachers, in their respective fields. Without the publicity given to the program by the newspapers, the people could never have been awakened to its possibilities. The county agents and home demonstration agents have contributed liberally of their time.

The actual field survey was made by fifty-eight engineers, each working in one or more counties. These men attended one of six schools held for their training and received definite instructions as to methods and their supplies at that time. The data were sent to the writer's office where C. W. Burton, an electrical engineer, was put in charge of the compilation. With one stenographer and later, with six of the outstanding field men, Mr. Burton analyzed the data which was published in a book entitled "The North Carolina Rural Electrification Survey." Fifteen volumes were made up and they have been of inestimable value, serving as a basis for all later developments in the program.

THE salaries of all employees, travel expense, printing, and supplies, were paid through the Emergency Relief Administration. The total amount finally approved approached $25,000 and an additional sum was supplied through the National Youth Administration allowance at State College. This latter money gave employment to a number of college students who prepared maps and other data for the survey books.

The accuracy of this survey and the unbiased interpretation of the data gradually won the confidence of the private power company officials as to its value. The major power companies operating in the state now each have a volume which they use in planning their rural extensions.

Following the introduction of the North Carolina Rural Electrification Survey as a relief project, national officials became interested and many states began similar surveys. Interest in Rural Electrification had so increased over the nation in line with President Roosevelt's expressed policy to improve rural conditions that, on February 12, 1935, Secretary of the Interior Ickes sent Governor Ehringhaus copies of proposed power bills to be enacted by the state legislature which was then in session.

After thorough study by the Rural Electrification Committee, the governor's office, and leading members of the general assembly, it was decided that the Ickes' bills would not be satisfactory under North Carolina conditions and they were not presented to the legislature.

¶ "WHOLE *counties, having despaired of ever obtaining electric service, have awakened to the possibility of its attainment and many are beginning to enjoy the comfort and luxury which it brings. Rural leaders everywhere express the thought that nothing in their experience has so quickened the pulse of their communities as the coming of electricity.*"

STORY OF RURAL ELECTRIFICATION IN NORTH CAROLINA

A GROUP of legislators, headed by Senator Dudley Bagley of Currituck county, prepared a bill for the general assembly which was passed with the approval of Governor Ehringhaus. This bill provided for the creation of a North Carolina Rural Electrification Authority, and appropriated $10,000 annually for its use. The purpose of the Authority was clearly set forth in the act in the following words:

> To secure electrical service for the rural districts of the state where service is not now being rendered; to contact the power companies and other agencies for the supply of electric energy, for and on behalf of the rural communities that desire service; to have such rights and authority to secure for such local communities assistance from any agency of the Federal government.

In short, the activities of the state Authority were to be promotional. The Authority has no money with which to construct rural lines and is dependent upon the coöperation of existing facilities to accomplish its purpose.

Following the provisions of the act, on June 15, 1936, Governor Ehringhaus appointed the following members of the Authority: Dr. Jane S. McKimmon, state home demonstration leader; W. Kerr Scott, farmer, Haw River, N. C.; S. H. Hobbs, Jr., University of North Carolina; J. L. Horne, Jr., editor of the Rocky Mount *Telegram*, Rocky Mount, N. C.; George M. Stevens, of the Farmers' Federation, Asheville, N. C.; and Dudley Bagley, Moyock, N. C. At the first meeting of the authority, Mr. Bagley was elected chairman, and C. W. Burton, secretary. Offices were set up in the Revenue building in Raleigh, and the Authority began to coördinate the activities of all the agencies interested in rural electrification.

THE recently formed Rural Electrification Administration at Washington, the power companies operating in the state, municipalities of the state which have their own generating or distribution systems, and the extension division of the agricultural college at State College, all were asked to participate in a coördinated program.

Owing to the policy of the National Rural Electrification Administration to carry out its rural electrification program only through coöperative groups, the policies of the newly created state Authority sometimes conflicted with it. Through a diplomatic and tactful approach of the problem on the part of Mr. Bagley and members of the Authority, the power interests of the state soon saw the advisability of extending their lines further into the country.

This brought about a condition which was not favored by the Rural Electrification Administration in Washington, and although the state as a whole has been very successful in securing rural extension, it cannot show a large number of miles constructed with funds which were loaned by the Rural Electrification Administration in Washington.

In one county, in the state, the difference in approach led to an open break between the newly organized coöperative, sponsored by the Federal administration, and the power company doing business in that territory. This unfortunate occurrence has resulted in a deadlock as far as rural electrification progress in that county is concerned, both sides having enjoined each other from further extension.

New Era for Rural Inhabitants

"WHAT other service enters the farm home and the farm, standing ready night and day at the throw of a switch to render efficient, safe, economical service? The Old Oaken Bucket, kerosene lights, Old Dobbin, and a great many other landmarks may give us traditional symbols of a romantic past, but the dawn of a new era is here for the rural people of America and electricity will play a most important part in the dawning."

THE work of the Federal Rural Electrification Administration and the North Carolina Rural Electrification Authority has been much confused in the public mind. Although they have the same purpose; namely, that of extending rural power lines to every possible section of the country, and of securing lower rates with the increased consumption which farm use will bring about, and the education of the rural people in the use of electricity, the Federal REA has no district or state offices, while the North Carolina REA has its office in Raleigh.

A further distinction is that the state Authority has no funds, except a small maintenance fund; whereas, the Federal Authority has at its disposal, $410,000,000 for the next 10-year period. For the year beginning July 1, 1936, a sum of $50,000,000 may be borrowed by the Rural Electrification Administration from the Reconstruction Finance Corporation for the construction of lines in feasible territory in the United States. One-half of this sum, or $25,000,000 is to be allocated on the basis of unserved rural population in any state, to the total unserved rural population of the United States. On this basis, North Carolina will receive an allotment of $1,210,250 to be used if suitable conditions can be found for rural extension. North Carolina's allotment was the third largest in the Union, being exceeded only by the allotments for Texas and Mississippi, which had a higher number of unserved rural families.

The second half, or $25,000,000, is to be allocated at the discretion of the Administrator of the Rural Electrification Administration, in any or all of the states and territories with the provision that no state may receive more than 10 per cent, that is $2,500,000, of this sum. It will now be seen that in North Carolina, we had the possibility of securing some $3,700,000 during the year beginning July 1, 1936, provided the conditions which were presented to the Rural Electrification Administration in Washington were considered feasible enough to make this large an allotment. The accompanying table shows the actual amount alloted to date.

SHORTLY after the formation of the North Carolina Rural Electrification Authority, the agricultural extension service at State College decided to expand its rural electrification program, and appointed a rural electrifica-

tion specialist in the department of agricultural engineering. A plan of work was drawn up which was approved by the state and Federal authorities and he began a series of meetings in the hundred counties of the state. These were chiefly on general information as to the steps necessary to secure assistance in building lines. In the appointment of a new home management specialist, this work found an important ally, and they have jointly conducted meetings in a great many of the communities of the state. The past year has been largely devoted to wiring schools, in which they attempted to impress upon the rural people the necessity for having a safe and adequate wiring system installed in their homes. They have at least 150 meetings of this type scheduled for the coming year. Two bulletins on rural electrification have been issued with a combined distribution of 67,000 copies.

In order to give some idea as to the progress which has been made since the formation of the North Carolina Rural Electrification Authority from July 1, 1935, to May 1, 1937, a report of progress is given. (See Table I.)

From a study of these figures, it is to be noted that in this twenty-two months' period, over 34,000 new customers are assured of electric service. When one considers the apparent hopelessness with which the rural electrification program was viewed when it was first proposed as a means of securing service, it is easy to see why people of the state are rejoicing over the progress which has been made thus far. It is to be remembered that this twenty-two months is just the beginning of a long-time program, and with the earnest coöperation of all interested agencies, there is no reason why it cannot be carried on until every rural North Carolina dweller having practical conditions for the extension of lines, cannot be served.

A BRIEF analysis of the figures in Table I reveals that the customer density per mile on the line built by the private utilities is just about equal to that of the lines proposed by the Federal REA. The two avowed purposes of the Federal REA are to reduce rates to a point where the average farmer can afford to use electric current for every purpose and to be sure that there is no "skimming of the cream" by the power companies. With our low rates in North Carolina and the showing

TABLE I

CONSTRUCTION OF RURAL ELECTRIC POWER LINES IN NORTH CAROLINA, 1935-1936

Totals from July 1, 1935, to May 1, 1937. Reported from records in office of The North Carolina Rural Electrification Authority

	Miles of Lines					
Agency	*Built*	*under Const.*	*Authorized*	*Total*	*Estimated Total Cost*	*No. Customers*
Public Utility Companies	2,724.01	489.35	1,422.17	4,635.53	$4,797,362	25,509
Municipalities	456.70	33.50	27.60	517.80	420,473	2,696
NCFERA	22.60	....	....	22.60	34,697	227
Other	4.00	....	....	4.00	3,000	16
REA Washington, D. C.	174.00	22.00	800.90	996.90	1,091,250	5,573
Grand Totals	3,381.31	544.85	2,250.67	6,176.83	$6,346,782	34,021

TABLE II

RATES EFFECTIVE FEBRUARY 1, 1937

Duke Power Company

Kw. Hr.	1932	1937	Saving
20	$ 1.60	$ 1.30	$ .30
30	2.35	1.80	.55
40	3.05	2.15	.90
50	3.75	2.50	1.25
75	5.50	3.13	2.27
100	7.25	3.75	3.50
200	14.25	6.25	8.00
300	21.25	8.75	12.50

Carolina Power and Light Company

Kw. Hr.	1932	1937	Saving
20	$ 2.00	$ 1.00	$ 1.00
30	3.00	1.50	1.50
40	3.80	2.00	1.80
50	4.40	2.50	1.90
75	5.90	3.25	2.65
100	7.33	4.00	3.33
200	12.83	6.00	6.83
300	18.33	7.75	10.53

made by the power companies to date, certainly these two purposes have been accomplished in North Carolina.

From the table, it is seen that the above mileage will cost $6,346,782. After deducting the value of the line to be constructed by the Federal REA, the remainder represents an investment which will yield in the form of tax money, a valuable sum to offset the cost of operating the North Carolina Rural Electrification Authority. When one considers that this investment is subject to, (1) franchise taxes; (2) ad valorem tax, and (3) that the revenues from the increased extension are subject to a 6 per cent gross income tax, it is easy to see that the investment which the people of the state made in the Rural Electrification Authority, of $10,000 annually, will be easily returned.

One of the most notable features in the whole rural electrification program and credit for which must be distributed among all the agencies involved, is the fact that this set of figures now shows an average cost of building these lines of $1,027 per mile and the investment per customer as $186. This is indeed quite a contrast to the figures which prevailed prior to 1934. At that time figures were quoted by private utilities at a cost of $1,500 to $2,100 per mile.

THE most significant change, however, is the attitude which now prevails in the industry in North Carolina and instead of requiring one-third of the investment to be returned as gross revenue per year, they are now willing to accept as low as one-fifth the investment per mile per year. Expressed in another way, this means briefly that instead of demanding a total gross revenue per mile from the customers on that mile of from $500 to $700 per year they are now willing to accept approximately $180 per mile

per year. This of course, increases the number of customers who could accept service due to the fact that their proportionate part of this cost is so greatly reduced.

One of the factors accounting for the lower cost per mile in constructing rural lines, is the coöperation which has been afforded by the manufacturers of line materials. Transformers, wire insulators, poles, cross arms, and all other hardware in connection with line construction have been materially improved and the cost reduced. Greater strength of wire has been introduced as a factor in permitting fewer poles per mile, several prominent companies of the country using as low as 13 poles per mile. The practice of using no cross arms and only one insulator has also materially reduced the cost.

As reduced costs continue to be used in construction and as increased consumption grows, due to these reduced costs, then the feasibility of areas not now considered feasible will be greatly increased. Indicating a tremendous reduction in rates taking place in the last few years, Table II is given by two of the power companies operating in the state. Other companies have made reductions also.

A BRIEF study of Table II reveals that in using 100 kilowatt hours per month from either of these two companies, the farm customer will pay from $3.33 to $3.50 per month as compared with a bill which would have been rendered him in 1932 of from $7.25 to $7.33. Surely this is a great forward step in encouraging increased consumption of electric energy. When one considers that at these lower rates a man would have to be willing to pump 100 gallons of water for the wage of one cent in order to compete with these rates the absurdity of not using electricity as a source of power is quite evident.

In all the single improvements which may be made about this farm and in the farm home, there is nothing which compares with the most versatile servant ever known to man. A horse can plow land, but it cannot operate a washing machine. A tractor can drive an ensilage cutter, but it cannot brood chicks. A windmill can pump water but it cannot cook a meal. A gasoline engine can be used to grind feed but it cannot light a home. And so, by comparison electric current can do almost all those things that other forms of power can do, and do it better, more economically, more safely, and more quietly.

What other service enters the farm home and the farm, standing ready night and day at the throw of a switch to render efficient, safe, economical service? The Old Oaken Bucket, kerosene lights, Old Dobbin, and a great many other landmarks may give us traditional symbols of a romantic past, but the dawn of a new era is here for the rural people of America and electricity will play a most important part in the dawning.

Truly history has been made in North Carolina in the past thirty months. No other similar length of time has seen such an improvement and such a desire for improvement on the part of our farm people. May every agency interested in its promotion be heartened by this rapid progress and continue its efforts in behalf of the forwarding of this great program.

The Power Crisis in Mexico

Difficulty in raising capital for electrical development, owing to increased wages and taxes, reduced rates, and fear of expropriation.

By LOUISE C. MANN

THERE is a crisis in the electric light and power industry in Mexico. Unlike most Mexican crises, this one is occurring quietly, without the accompaniment of rioting, gunfire, and assassination.

The average tourist would have been unaware of the situation, had it not been for a small paragraph in the hotel news bulletin, to the effect that the Mexican Light and Power Co., S. A., which supplies Mexico City, had announced that it had reached the limit of its capacity, and was unable to take on any more contracts.

The members of the American colony living in the suburbs, however, feel the crisis more acutely, because in the evenings they are unable to obtain some of their favorite radio programs, owing to insufficient strength of current; and the electric lights at times are too dim to read by comfortably.

An even more serious development is the fact that it is rumored that soon no new electrical household appliances, such as electric ranges, can be installed. Since the electric equipment companies at present are otherwise very optimistic, such an eventuality would curtail prosperity along that line.

The Mexican Light and Power Co. is controlled by Canadian capital. Its plants, including the one at Necaxa, have reached the limit of their capacity, which falls short of the power requirements by 20,000 kilowatts of electrical energy.

As a means of temporary alleviation, a small power plant which will supply approximately 3,000 horsepower to Mexico City, has been built by the Compania Hydro-electrica del Amacuzac, S. A., a Mexican company. Expert opinion, however, holds that the steadily increasing demand will consume this small supply in a maximum of six weeks. This same company is now trying to build a larger power plant in the state of Guerrera; but since it is being financed by the sale of stock to the Mexican public, funds

are not forthcoming in sufficient quantities to produce any tangible results.

The conditions are the same in other sections of the country. The three major systems of the American and Foreign Power Co. are in an oversold condition. There is no reserve, particularly during the dry season; so that if one plant breaks down, as happened when I was in Puebla, the supply of electricity is completely shut off. Factories were closed and elevators ceased to run. The plant at Guadalajara and most of the other plants in Mexico, with the exception of the one at Monterey, have also reached their limit of capacity.

At the present time, Mexico is enjoying what is perhaps the greatest business boom in her history, due to three specific causes, besides improved world conditions in general. The program of the National Revolutionary Party has raised wages, thereby increasing the purchasing power of the laboring classes. Heavy exports of metals have resulted from the armament race in Europe and the silver policy of the United States. And last but not least, the unprecedented influx of American tourists has brought prosperity to all industries, particularly the building trades, and from the standpoint of foreign exchange has improved purchasing power abroad.

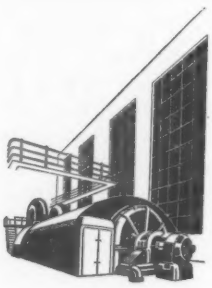
About the only industry not to benefit from the new prosperity is the electric power industry. Certain oil companies engaged in the retail distribution of gasoline might disagree with this statement; but the difference in the status of the two industries lies in the fact that the big profits in the oil industry result from the exports of oil, and are sufficient to finance the almost profitless sale of gasoline.

Why has the public utility industry in Mexico been unable to take advantage of increasing prosperity? Why are the electric companies unable to expand to meet the growing demand? The answer is the collapse in the attraction of foreign capital for this industry. If wages are raised, rates reduced, and taxes increased, so that return on money invested dwindles to the vanishing point, while at the same time conditions are not conducive to inspire confidence, how is new capital to be raised to build the necessary power plants?

According to Ing. Manuel A. Hernandez, formerly with the "Secreteria de la Economia National," the Mexican Light and Power Co. will find it impossible to raise more capital unless its revenues are increased. He said, "This company has not paid dividends since 1914, and at present is unable to pay even half the interest on its bonds and debentures."

Officials of other utility companies, who refuse to be quoted by name, state that much further expansion is impossible under present conditions. Dr. Federico Bach, consulting economist to the government, asserted that the utility companies are unable to raise new funds for expansion, because there is a strike of capital due to lack of confidence on the part of investors, both Mexican and foreign. He said, "There is no guaranty that the public utilities will not be taken over by the state."

In considering the question of return on money invested, another factor to be borne in mind is the reduction in



Diablo Cuts Electric Cost

" . . . an unofficial form of expropriation is being conducted by private and industrial consumers of electricity. . . . Wires called 'diablos' or 'diablitos' are used on the meters, cutting electric bills in half. Or for a nominal service charge, a man may come once a month and attach a 'congrejo' (crab) to the meter, making it run backward to a point just beyond the last meter reading. It is alleged some new apartment houses and residences are built already wired with such devices as standard equipment."

the value of the peso since the enactment of the monetary law of July, 1931. Mexico manufactures practically none of the generating, transmission, and distribution equipment used in the industry. Consequently, such equipment must be imported and paid for in foreign currencies. The cost, based on the present value of the peso, 3.6 to the dollar, and on which cost earnings must be realized, is 80 per cent higher than the peso cost when the peso was 2 to the dollar. Conversely, returns are reduced in the same proportion, although the original cost remains the same.

THE electric light rates are lower in Mexico City generally than in the United States. The Mexican Light and Power Co. pays out 18 per cent of its revenue in taxes.

According to the Federal Power Commission, the average residential rate in the United States for 100 kilowatt hours in cities of over 100,000 population, is $4 per month. Compare this with $2.57 per month in Mexico City.

The tax free municipal power plant at Tacoma, Washington, with $2.12, is the only city in the United States where current is cheaper than in Mexico. For typical net monthly bills of 40 kilowatt hours in cities of the same size, the list is headed by Cleveland, Ohio, with $1.31, while Mexico is second with $1.40. Mexico City, with 1,600,000 population, has cheaper electric rates than any city in the United States between 50,000 and 100,000.

While on the one hand rates are reduced to the minimum, on the other hand wages are continually being raised. The demands of the labor unions have been increasing constantly since the Federal Labor Law was passed in 1931. The new labor contracts in the public utility industry all call for more benefits than previously, in spite of which a series of strikes is in progress at present which hinder efficiency and are an added expense. Under such chaotic conditions, long range planning is impossible. Future costs cannot be estimated; and employers are unable to avail themselves of the services of insurance companies for workmen's compensation.

A RECENT decree provides pay for Sundays or one rest day a week. For example, the new labor contract with the power plant at Guadalajara calls for seventy-nine rest days and holidays per year with pay. Other benefits are for a provident fund of 7 per cent for emergency; for ninety days' pay for nonvocational injury or illness; for houses to be furnished free, or an increase of 4 per cent in pay to cover rent, and a 75 per cent reduction in fuel and light; and for old-age pensions of 80 per cent.

A reduction of payrolls through the installation of labor-saving machinery is practically impossible. When men are laid off for this reason, the wages of those retained have to be raised a corresponding amount. No one can be discharged without the consent of the union; and those discharged with such consent have to be given three months' pay, plus ten days' pay for each year they have been connected with the company.

On the other hand, if the union decides to expel a worker, the company also has to fire him. This works an injustice to the efficient worker, and exposes him to petty jealousy and interunion politics.

It is obvious, therefore, that with this combination of factors, namely, high wages and taxes together with low rates and reduced value of the peso, the electric companies are unable to make sufficient profits to attract new capital. At the same time, many investors feel that there is an element of risk which should warrant a high rate of return on money invested. Interest rates in Mexico are generally about twice as high as in the United States. The average rate of interest on commercial loans issued by the National City Bank in Mexico at the present time is 7 per cent; whereas the interest on similar loans in New York is only from 3 per cent to 4 per cent. The Law of Credit Instruments in Mexico allows 9 per cent as the legal rate. The rate on mortgages there is about 11 per cent, whereas in this country it is from 5 per cent to 6 per cent.

THE two bugaboos of foreign investors in Mexico are revolution and expropriation. Government conditions have been so stable recently, however, that there is no longer any talk of the fear of revolution among either American or Mexican business men. On the other hand, while many reassuring statements have been issued to alleviate the fear of expropriation caused by the passage of the law in November, 1936, that law still remains on the statute books.

Public utility officials in Mexico have been informed by the government that they have nothing to fear in the way of expropriation. President Cardenas, according to the *New York Times*, has declared, "Our expropriation law is intended to make possible the taking of property for roads and public welfare. It will not be used in any other way."

William B. Richardson, manager of the Mexican branch of the National City Bank, stated that it is the policy of the government to respect foreign property. He said, "The expropriation law was passed for political reasons, that is, to quiet the radicals; and the government has no intention of using the law promiscuously."

On the other hand, whether or not the danger of expropriation exists as

¶ *"WHY has the public utility industry in Mexico been unable to take advantage of increasing prosperity? Why are the electric companies unable to expand to meet the growing demand? The answer is the collapse in the attraction of foreign capital for this industry."*

far as the electric companies are concerned, there is no doubt that the fear does exist. Dr. Federico Bach was quoted earlier in this article as saying that there was no guaranty that the public utilities will not be taken over by the state. Statistics show that there was a lull in general business from September to December, due partly to the passage of the expropriation law. A large amount of land has already been expropriated, and the oil companies are in a continual state of jitters for fear that they may be next on the government program.

IN the meantime, an unofficial form of expropriation is being conducted by private and industrial consumers of electricity. According to Ing. Hernandez, from 20 per cent to 30 per cent of the electric current is stolen by means of well organized "rackets," as they would be called in the United States. Wires called "diablos" or "diablitos" are used on the meters, cutting electric bills in half. Or for a nominal service charge, a man may come once a month and attach a "congrejo" (crab) to the meter, making it run backward to a point just beyond the last meter reading. It is alleged some new apartment houses and residences are built already wired with such devices as standard equipment. Thus, many consumers, with a minimum contract of 1.05 pesos for three bulbs, use any number of electrical appliances without cost.

The present law against this evil is ineffective, because the stolen goods cannot be produced in court as evidence. A decree is expected to be issued shortly, however, making a criminal offense of "diversion of current," as it is tactfully called. Were these conditions to be corrected, which appears very difficult at present, more power would be available for the consumers, as well as more revenue for the companies. This solution, however, is only a drop in the bucket compared to the problem as a whole.

FOR one thing, Mexico has a great prejudice against foreign capital. She wants more power plants, but she does not want the ensuing profits to leave the country. Professor Louis Chavez Crezco, Under Secretary of the Ministry of Public Education, said in an interview that one of the aims of the educational program was to free Mexico from international imperialism. Most industries require that 85 per cent or 90 per cent of all technical employees be Mexican. New schools are training students to take over the technical positions in all Mexican industry, and a special permit is required to hire a foreign technician.

Mr. Richardson of the National City Bank, when asked what should be done to enable the electric companies to supply the needed facilities, replied that the government would have to help the utilities.

Dr. Bach, in response to the same question, stated that the government would take over all the utilities when their terms of concession had expired. Since the concessions still have a long time to run, however, there is no immediate prospect of this eventuality.

The Mexican budget for 1937 is the largest in its history, consisting of 405,000,000 pesos, reflecting an equivalent enlargement of state income. This increase of 100 per cent in the budget since 1932 was wrought largely by a stable government with no revolutions. Much of the money has been invested in highways, irrigation, and railroads. If this percentage of increase continues, the state will be able to supply all the capital needed for the country.

THE fallacy of projecting graphs of long time trends into the future is obvious; but the above statement must be made in order to understand the policy of the Mexican government. It explains their lack of concern over the inability of the power plants to raise capital for expansion. It explains the change of attitude toward the settlement of the foreign debt. While they realize that the country could be developed more quickly with outside aid, the improvements provided for in the 6-year plan seem to be materializing nicely. As a consequence, the government feels much more independent about having the external debt settled upon any terms but their own, which involves the refunding of the railroad bonds as well as the outside debt. In the meantime, domestic heavy improvements are more important than foreign obligations.

What, then, does the future hold for the utilities? Prophesies are always dangerous, particularly in Mexico, the inconsistent and the unpredictable. It seems to be the consensus of opinion of those interviewed upon this subject, however, that the electric power companies are in no immediate danger of expropriation; but that they are in danger of the more subtle process of absorption, from which there is no legal redress. And in the meantime, it looks as if some residents of Mexico will have to do without electric ranges and their favorite radio programs for a long time to come.

Will There Be a Norris Chamber of Commerce?

"THE TVA reached a peak in the town of Norris, designed to be permanent—so elaborate and pretty, on a garden-city pattern of bends and curves, in such delightful scenery and with so many amenities, that it looks exactly like a pleasure resort. There are excellent chances that it may become a country suburb of Knoxville—or even a self-sufficient center, if the TVA can expand a ceramics laboratory it erected there; the workers, for whom it was originally made, have left for other dams in the valley, but people from neighbouring places are renting the dainty, comfortable, electrically lighted and heated little houses of brick, painted wood, white cinder-block and blue-tinted stone. Norris was an experiment that is too expensive to be repeated, but all the TVA camps possess its basic features: facilities for the physical and mental development of a modern community. When you develop the faculties of several thousand human beings, you've already deserved well, I think, of your age."

—EXCERPT FROM "A FOREIGNER LOOKS AT THE TVA."
By Mme. Odette Keun.

Financial News and Comment

By OWEN ELY

Steam versus Hydro—More Expert Testimony

THE continued political stress on hydro power is misleading. American Gas & Electric Company in a recent advertisement calls attention to the fact that one pound of coal contains as much power as ten million pounds of water falling one foot. Today it is possible to produce a kilowatt hour for every pound of coal burned—efficiency eight times as great as fifty years ago. Thomas Edison epitomized the subject when he said, "The first and best source of power is coal . . . water power is a political issue, not a business one. Rates are fixed at any point by the cost of generating power from steam."

At hearings before the railroad and public utilities commission of Tennessee, on the application of the Tennessee Electric Power Company to construct a steam plant instead of buying power from TVA, the weight of expert testimony favored steam as much more economical. E. J. Muir, TVA Assistant Director of Rates and Research, admitted that purchased power would cost about 8 per cent more than the steam generated power, although he thought this might be more than offset by certain economies which could be practiced by the power company under a purchase contract with TVA.

Professor Ford L. Wilkinson of the University of Tennessee, an adviser for the state commission, estimated steam savings at $101,000 to $120,000 a year. Edward L. Moreland, head of the electrical engineering department of the Massachusetts Institute of Technology, estimated savings in favor of steam generation as amounting to $70,000 in 1938 and increasing to $221,000 by 1940. Even if costs were equal, he preferred steam because of its greater reliability.

Security Markets "Turn Corner," but Volume Small

BOTH bond and stock markets now appear to have "rounded the bottom." The bond market, which began its sharp dip soon after January 1st and reached its lowest April 12th, has been staging a slow and irregular recovery. Stocks continued to advance into early March, then declined until the middle of May, with a somewhat erratic uptrend since that date. Despite a set-back due to the German-Spanish incident June 1st and continued concern over the gold question, the Dow-Jones averages for industrial and utility stocks still retain most of their recent gains. Rails have made a poor showing, for special reasons. Trading interest in stocks has declined to a low level, as occurred after last year's decline; it seems likely that volume will continue at rather low ebb until favorable second quarter earnings statements, or the approach of adjournment of Congress, stimulate fresh interest.

It is a curious fact that stocks have declined while business activity (as measured by the *Times* weekly index) has been mounting to new high levels

since 1929. Doubtless many observers feel that the gains are due to the backlog of orders accumulated before the break in commodity prices, and that the recent slightly disappointing trends in retail trade, car sales, and building activity are of greater importance in gauging the outlook for the balance of the year. Recent statistics on department store inventories and sales have indicated that "consumer resistance" made its appearance in the spring, instead of the fall as formerly anticipated. However, according to a compilation by the National Industrial Conference Board, average hourly earnings of factory employees are now well above the 1929 rate and weekly earnings are not far below the level of that year. This great increase in consumer purchasing power, combined with large anticipated gains in farm income, should soon absorb any excess retail inventories and help continue the upward trend of the business cycle. Certainly there is no indication of a breakdown in the credit structure, main cause of the 1929 debacle.

Holders of utility stocks were awaiting the President's power message with some trepidation, but the message itself caused hardly a ripple in utility prices. The absence of important court decisions until fall, and indications that there is a considerable difference of opinion at Washington regarding future Federal power development, may result in some revival of interest in utility stocks during the summer. The compilation of utility earning statements (see last page of this section) indicates some excellent gains in share earnings, thus far largely ignored by the financial markets.

Power Investors Penalized Hundreds of Millions by Federal Program

In an article on "Public Utilities and the New Deal: TVA Times Eight Equals Power Plus," Kendall K. Hoyt presented in a recent issue of the *Analist* an interesting chart comparing the trends of industrial, rail, and utility stocks during 1933-1937. The effects of utility legislation and Federal propaganda against private companies are graphically indicated by charting various news items in relation to the short-term moves of utility stocks. Quoting from the article:

> How the competitive attitude of one authority in one region beat down power stocks, time after time, can be readily seen in the breaks that came with TVA announcements. The spectacular drop of 1935, of course, was due to the fear of something else; of the holding company bill which threatened to weaken the resistance of the industry to competition of the TVA type.
>
> It is true that power stocks have advanced since that time. But, plainly, they have not regained the position relative to the rest of the market, which they held before the Federal program began. How much higher they would stand today can only be guessed. The differences could be as much as 20 to 30 points in the accompanying chart had power securities since 1933 not fallen but advanced as did industrials and rails. The differences may be estimated conservatively in the hundreds of millions of dollars, a figure comparable to the cost of the government power program to date.
>
> When stock values drop, it is not the "power trust" that pays but the rank and file of the people who own these widely held securities. They, in effect, have paid for the program by a shrinkage in their savings, laid up for future use or convertible into present spending which would aid the national recovery. The people have paid once in that way and they will pay a second time in taxes for Federal works, the cost of which is now a part of the national debt. They will pay a third time in interest before that debt is retired.
>
> This destruction of the people's assets and of their purchasing power has been influenced in no small part by the policies of TVA. If other authorities are set up under like policies and are developed in their several regions to the extent of TVA, further losses are inevitable . . . The decline in Commonwealth and Southern . . . has continued despite the gain in earnings of the company, because of fears of what is to come, . . . showing that Federal aggression can virtually wipe out the equity of common stockholders in companies which fall in its path.
>
> So the conquest goes on and, as TVA captures an area, the companies either have to sell out or pull up their poles. The Alabama Power Company, for example, sold its system at Florence and Tuscumbia at a sacrifice and has taken income notes from the municipalities. At Sheffield the company could get no settlement and is having to dismantle its properties. These are little towns

but as injunctions against PWA municipal systems are lifted the wrecking crews will have bigger jobs.

Profit-making Test for REA Policy

THE following item from *The New York Times* indicates that the recent REA policy of pushing out government funds as fast as possible to farm coöperatives, or others sponsoring rural electrification projects may be open to criticism even in Wisconsin, the original home of antiutility legislation:

> An interesting discussion of the government's rural electrification program appears in the current issue of *News*, published monthly by the REA. Bringing home the point forcibly, John A. Becker, director of the Wisconsin Rural Electrification Coördination, states that experience in the last year has led to the conclusion that it does not pay to "organize cripples." The "cripples" referred to by Mr. Becker are those rural projects which should, in most instances, "be discouraged because they have the least prospect of developing a sufficient consumption of electric energy to make their projects profitable." Mr. Becker also sets forth that in examining a rural project which "must be a business proposition" the caliber of the farms on the project must be considered. Realizing that the development of rural electrification is costly, a fact discovered by the private power companies long ago, Mr. Becker presents some excellent arguments to substantiate the private power companies' stand.

Repeal of Capital Gains Tax Urged

MANY authorities have urged the repeal of the capital gains tax as an important step toward stabilizing the fluctuations of the business cycle. Recently Morris E. Tremaine, Comptroller of the State of New York, suggested immediate repeal in order to revive real estate operations and reduce unemployment through restoring the construction industry to predepression levels. He pointed out that large-scale development of real estate cannot be attempted in the face of such an unpredictable tax since prospective buyers must be able to calculate future taxes before risking their capital on a large scale.

Repeal of the tax should also prove an important stabilizing factor in the stock market. Its repeal before 1929 would have considerably reduced the ultimate shock due to heavy selling by wealthy security holders, who had not previously wished to pay the government a substantial part of their paper profits.

Stability of government income would be a further desirable object. To quote from the *United States News*:

> We are told that English or Canadian tax rates have been increased and are larger than American tax rates. This should mislead no one. English and Canadian rates apply only to true income and the individual pays no income tax whatever on the gain he makes on his capital . . . These countries do not kill the goose that lays the golden eggs. They insure its life, so that their revenue may steadily increase. The revenue thus received is steady from year to year. It is calculable. Thus, a subcommittee of the Ways and Means Committee of Congress, on December 4, 1933, reported, "The stability of the British revenue for the last eleven years is in marked contrast to the instability of our own. In that period, the maximum British revenue was only 35 per cent above the minimum, while in our case, the percentage of variation was 280 per cent."

Sharp Gain in Security Registrations

THE favorable reception accorded the offering of $10,000,000 Cincinnati Gas & Electric Company first 3¼s of 1967—the only utility issue of importance in the fortnight ending June 5th—has apparently encouraged other companies and their bankers to proceed with the registration of large issues. On June 3rd the SEC announced receipt of applications for over $120,000,000 new issues, which included $80,000,000 Union Electric Co. of Missouri first & collateral 3¾s of 1962 and $15,000,000 3s due 1942; also $25,000,000 New York Telephone Company refunding 3¼s of 1967.

No new date has yet been announced for the offering of $13,600,000 Hackensack Water Company bonds—several

times postponed—but their appearance at an early date seems probable if conditions remain favorable. Possible June financing also includes $17,029,000 Buffalo, Niagara Electric Corp. general and refunding 3¼s of 1967, and $7,000,000 serial debentures; also $25,000,000 Westchester Lighting Company bonds, to be guaranteed by Consolidated Edison Company of New York.

Associated Gas & Electric Company has asked to withdraw its registration filed March 30th covering $10,000,000 debenture 5s of 1952, which were to be exchanged for outstanding securities. *The New York Times* comments as follows:

> When the statement covering the bonds was first filed with the SEC by the corporation, which is a holding company that has not registered under the Public Utility Act of 1935, some observers felt that it was an effort to test whether the "left" hand of the SEC knew what the "right" hand was doing. The SEC itself appears to have developed similar suspicions, and the company took pains to reassure the government agency on this point. The reason given for the withdrawal is that the audited statements filed with the original application are now out of date, and since preparation of new statements will take time, it was seen preferable to withdraw the proposal.

Corporate News

New York Steam Corporation has omitted the dividends on its preferred stocks for the first time since they were issued, resulting in a sharp decline in the two issues. President Johnson indicated that the action was due to a recent drop in earnings; in the twelve months ended April 30th earnings failed to meet dividend requirements by $402,357. The company may eventually be merged with Consolidated Edison, which has made an exchange offer for the preferred stocks, but this offer has been disapproved by the public service commission.

The Protective Committee for the $4 preferred stock of Standard Gas & Electric Company opposes the amended reorganization plan on the ground that it is disadvantageous to their interests. Holders would be compelled to give up their rights to accumulated dividends and to accept in exchange a $2 noncumulative, convertible, second preferred stock plus one and one-half shares of common stock. The provision of the plan which would permit holders of notes and debentures to exchange their securities in part for common stocks of operating subsidiaries would tend to deplete the parent company's earning power, in the opinion of the committee.

Postal Telegraph Company has recognized the American Radio Telegraphists Association, a CIO union, as exclusive bargaining agency for its 2,600 employees in the New York metropolitan area. The union will make an immediate request for a closed shop agreement providing a 40-hour week and higher wages for all Postal employees. Thus it appears that increased labor costs may again delay reorganization of the system.

The city of Memphis on June 1st sold a $3,000,000 bond issue for the construction of a municipal distribution plant for TVA electricity. The bonds are the first third of a $9,000,000 issue authorized in a referendum vote, and the new system is already under construction.

Pacific Gas & Electric Company is expanding its natural gas business. It has signed a contract with Amerada Petroleum Corp. covering the new Rio Vista field, including 58 miles of new natural gas lines to cost over $900,000.

Persistent weakness in the common stock of Brooklyn-Manhattan Transit appears to forecast a reduction in the present $4 dividend rate. While the company was still able to report a moderate gain in net available for common stock in the ten months ended April 30th ($3.62 against $3.55 last year), net income for the month of April showed a decrease of over 23 per cent compared with a year earlier. The recent increase of Interborough wages has resulted in heavy demands upon the B.-M. T. system. However, the decline in the common stock from a 1937 high of 53 to the current price around 22 would seem to discount the unfavorable trend.

RECENT EARNINGS STATEMENTS

Electric & Gas	No. of Months Included	End of Period	System Earnings per Share (a) Last Period	Previous Period	Per Cent Increase	Per Cent Decrease
American Gas & Electric	Twelve	Mar. 31 (d)	$2.28	$1.92	18%	..
American Power & Light	"	Feb. 28	0.19	D 0.42	..	..
American Water Works	"	Mar. 31 (c)	1.62	1.40	16	..
Boston Edison	"	Mar. 31 (c)	8.69	9.20	..	6%
Cities Service	Three	Mar. 31	0.11	0.09	22	..
Columbia Gas & Electric	Twelve	Mar. 31 (c)	0.36	0.54	..	26
Commonwealth Edison	Four	Apr. 30	3.51	2.24	57	..
Commonwealth & Southern	Twelve	Apr. 30 (d) (h)	0.18	0.03	..	..
Consolidated Edison, N. Y.	"	Mar. 31 (c)	2.48	1.90	30	..
Consolidated Gas of Baltimore	Three	Mar. 31	1.35	1.37	..	2
Detroit Edison	Twelve	Apr. 30	8.43	8.41	..	..
Electric Power & Light	"	Feb. 28	1.07	D 0.89	..	..
Federal Light & Traction	"	Mar. 31 (c)	2.78	2.36	18	..
International Hydro-El. ("A")	"	Mar. 31 (c)	1.11	0.21	425	..
Long Island Lighting	"	Mar. 31 (c)	0.22	0.26	..	15
Middle West Corp.	"	Dec. 31	0.58	(e)	..	..
National Power & Light	"	Mar. 31 (c)	1.09	0.83	31	..
Niagara Hudson Power	"	Mar. 31 (c)	0.83	0.48	73	..
North American Co.	"	Mar. 31	1.89	1.45	30	..
Nor. States Power of Del. (f)	"	Mar. 31	6.73	(e)	..	..
Pacific Gas & Electric	"	Mar. 31	2.75	2.25	22	..
Peoples Gas Light & Coke	Four	Apr. 30	2.13	1.35	58	..
Public Service Corp. of N. J.	Twelve	Apr. 30 (d)	2.74	2.42	14	..
Public Service Co. of No. Ill.	Four	Apr. 30 (d)	2.39	1.70	41	..
Southern California Edison	Three	Mar. 31	0.47 (f)	0.46 (f)	2	..
Stan. Gas & Elec. (Pr. Pfd.)	Twelve	Mar. 31 (c) (d)	10.52	6.42	63	..
Stone & Webster	"	Mar. 31 (c)	0.86	0.37	133	..
United Gas Improvement	"	Mar. 31 (c)	1.11	1.07	4	..
United Light & Power ("A")	"	Mar. 31	0.42	D 0.15	..	..
Gas Companies						
American Light & Traction (b)	"	Mar. 31	1.82	1.41	29	..
Arkansas Natural Gas	"	Dec. 31	0.53	0.22	120	..
Brooklyn Union Gas	"	Mar. 31 (c)	3.20	3.40	..	6
Lone Star Gas	"	Mar. 31 (c)	0.97	0.94	3	..
Pacific Lighting	"	Mar. 31	4.71	4.22	12	..
United Gas Corp.	"	Mar. 31 (c)	0.36	D 0.33	..	..
Telephone & Telegraph						
American Tel. & Tel.	"	Feb. 28 (c)	10.28	7.44	38	..
General Telephone	"	Mar. 31 (c)	1.71	1.52	12	..
Western Union Telegraph	"	Mar. 31 (c)	7.34	5.76	28	..
Traction, etc.						
Brooklyn-Manhattan Transit	Ten	Apr. 30 (d)	3.62	3.55	2	..
Greyhound Corp.	Twelve	Mar. 31 (c)	1.64	1.82	..	10
Hudson & Manhattan (Pfd.)	Four	Apr. 30 (d)	D 3.42	D 1.82	..	..
Twin City Rapid Transit	Three	Mar. 31	0.93	1.17	..	20
Systems outside U. S.						
Amer. & For. Power (Pfd.)	Twelve	Mar. 31 (c)	6.60	4.10	61	..
International Tel. & Tel.	"	Dec. 31	0.64 (g)	0.40 (g)	60	..
Montreal Lt., Heat & Power	"	Dec. 31	1.75	1.75	..	..

D—Deficit.

(a) On common stock, unless otherwise indicated following name of company; in some cases, Federal surtax not deducted.
(b) Total sales about 72 per cent gas.
(c) Report also published for quarter ending same period.
(d) Report also published for month ending same period.
(e) Not reported.
(f) Parent company only.
(g) Excludes Spanish subsidiaries and Postal Tel. & Tel. Co.
(h) Report also published for four months ending same period.

What Others Think

Higher Costs and the Utilities

IT is a common expression, when comparing increasing operating costs in the utility industries with unregulated industries, to say that the utilities are in danger of being caught between the upper and nether "grindstones" of increasing expenses and fixed, or even reduced, rates. The current labor agitation lends particular point to this observation.

When we read that a steel mill has increased wages, we know that the price of steel will soon reflect these increases. The same goes for coal. Both of these commodities, incidentally, are widely used in various public utility operations in which there is also some demand for increased wages. The whole movement is contagious. Automobile factories declare handsome bonuses. Woolen mills increase hourly wage rates. Organized labor is on the march and perhaps there is considerable justification for it. But in any event (this is not an argument on the merits of collective bargaining), the final bill always comes back to the consumer in the form of higher prices for the finished product. Always? Well, not exactly. There are—as we have already mentioned—the utilities—industries in which prices are fixed by law and strictly limited by continuous governmental regulators who, under prevailing political circumstances, are more likely to give ear to pleas for further reducing utility rates than increasing them.

But there are other, and one might say extenuating, reasons why utilities merit special consideration in the matter of wage increases and other increases in operating expenses. Mr. Leslie Vickers, New York consulting economist, gives such reasons in a recent article discussing the general situation with respect to transportation industries. He states:

> Wage rates, of course, are not the only factor in the earning power of the employee. Continuity of employment is equally important. Some of the industries that are now startling the economic world with their wage increases were forced to lay off many of their employees during the depression and to make drastic cuts in the wages of the remainder. Even in normal times some of them follow the practice of shutting down their plants for many weeks during each year and thus curtailing the annual earnings of their employees. No such complete shutdown is possible in the transit industry. Moreover, the seasonal variations in employment are relatively slight. At the time the Transit Code was drawn up, a statement was incorporated in the preamble showing the comparative stability of employment in the industry. I believe that this statement was a statement of fact, and I am convinced that it should receive very serious consideration in connection with the determination of wage rates.
>
> Little recognition seems to be given to this factor of continuity of employment by many of those who represent transit labor. Nor is adequate recognition given to the earning power of the industry. Most transit companies engage in collective bargaining with their employees. Management as a rule does not object to such bargaining but it does object to the recurring demands for higher wages without any thought of where the money is to come from, or any consideration of the advantage the transit employee enjoys on account of continuity of employment.

MR. Vickers repeats the somewhat ironic gibe about utilities being a business in which "it is a crime to make money" and claims that it applies particularly to the transportation industries, wherein any company that succeeds in getting more than a few steps ahead of the sheriff must immediately face converse demands for both higher wages and lower rates. The security holder in transportation, says Mr. Vickers, is certainly the modern "forgotten man." His investment is in a continuous state of being held for ransom and he is widely

thought to be lucky enough even to get back principal, much less interest.

As far as labor demands are concerned, Mr. Vickers seems to think that labor, organized or otherwise, is not entirely at fault. It is the duty of management, he thinks, to see that employees understand in dollars and cents just what the situation is from time to time.

Labor at present is being kept in a constant state of agitation by contagious reactions from such developments as the Wagner Act and President Roosevelt's wages-and-hours legislation now under discussion in Congress. To offset this one-sided influence, to which it is only human that any group of intelligent and literate employees will react to some extent, transportation management should take pains to show clearly to its employees the exact limitations of the source of both corporate revenue and employee compensation. Because they have more than the average intelligence, utility employees are generally quick to see the futility of trying to get blood out of a turnip.

Mr. Vickers concedes that there may be some instances in which labor leaders, although intelligent enough to understand economical problems of management, prefer to ignore them. In such cases, he admits, management may just as well whistle to the wind as to try to get any sympathy from labor leaders who are more concerned with union dues than sound and lasting employment. However, Mr. Vickers gives three specific suggestions which he believes will in most cases pay excellent dividends in terms of improved industrial relations:

1. Humanize executive contacts. Get rid of the invisible Big Boss psychology around the plant. This admittedly is an added burden to executives who cannot find time to do routine duties, much less encourage the idea of the Big Pal behind the Open Door to the head office. Nevertheless, this is another problem of management and a challenge to a good executive to find time somehow or other to get on intimate terms with all ranks of employees.

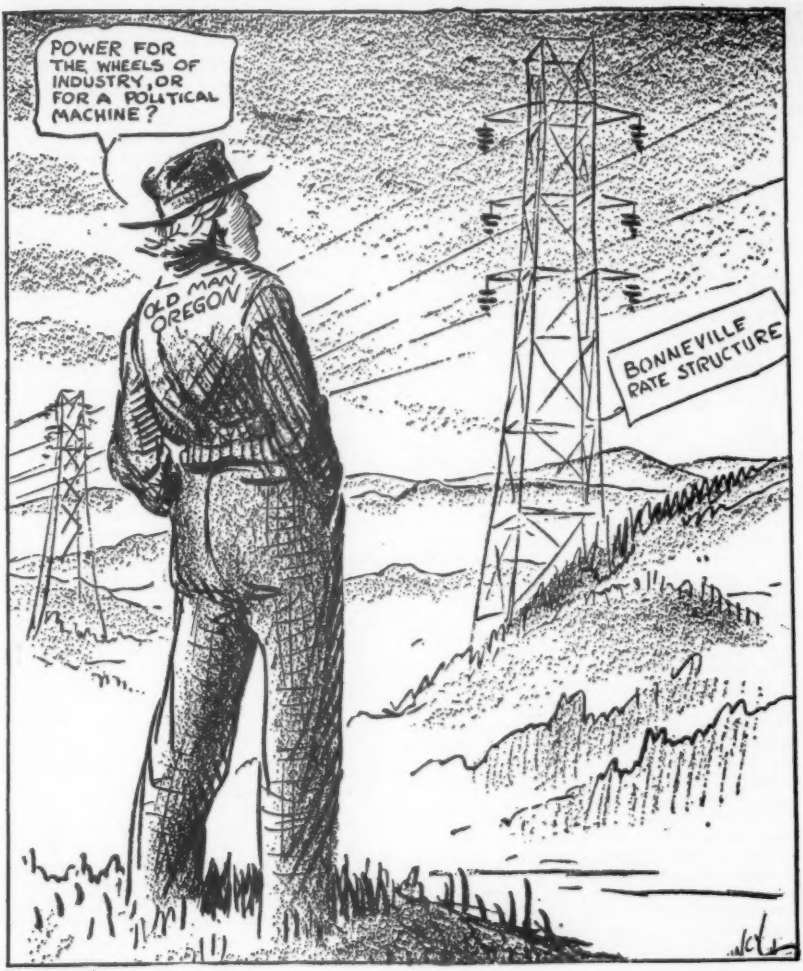
2. Simplify and circulate fair, accurate statements of the company's financial condition. The problem cannot be met by a shrug of the shoulders and a statement that the "company's books are open at all times." Employees have little curiosity about tackling account books on their own initiative, and probably would not understand them if they did. The purpose of management should be to *bring its side of the story* to the employee. To do this the company's financial condition must be written down in clear, brief, and interesting fashion and circulated to employees. This also, admittedly, is a difficult job but it can be done.

3. The transportation utilities in particular should modernize equipment and make every effort to improve the company's earning power so as to offset increased expenses. By analogy, presumably gas and electric companies might well study the possibility of modernizing rate structures along the latest promotional lines, where they have not already done so.

Concerning the attitude of utility labor to such overtures, Mr. Vickers concludes:

> No doubt the average employee would say that all this is the problem of the company and that he was not concerned with it. Is it an impossible task to show him that it really is his affair? Will it do any good to show him the inroads made into our revenues by the competition of the private automobile? Will it help if he knows that today there are available street cars, busses, and trolley coaches, much superior to any that have been available before—if only we had the money or the credit to buy them? Will it help if he knows that we are sincere when we say that we not only want him to have a reasonable wage now, but more than that, we want him to have security for the future? I believe that it will help —and help greatly.

ACTUAL workers would probably be fair about such matters but, as already stated, there is always the problem of a few professional union promoters whose own interest lies in labor organization rather than sound business operation. As one is said to have replied to a small electric utility executive's warning that the company would go broke if operating expenses kept climb-



The Oregonian

ANXIOUS

ing: "So what? Then the government will take over and we'd never have to worry much about wage cuts or layoffs either." Perhaps that might be the result, but suppose that happened to every business that was forced under.

Speaking generally of items that increase utility operating expenses, such as higher wages, materials, taxes and so forth, D. W. Ellsworth, editor of *The Annalist*, made the interesting observation that while there was approximately a 10 per cent average gain in net income of all power and light companies in 1936 compared with 1935, there was an increase in net operating income before charges of only about 3½ per cent—the greater increase in net after charges being the result of money-saving bond refunding. The opportunities for such

beneficial refunding, however, now seem to be drawing to a close.

Nor is the possibility of increased revenue resulting from increased consumption a complete solution. Mr. Ellsworth states on this point:

> Though total revenue from ultimate consumers was substantially higher in January, 1937, than in January, 1936 (8.6 per cent as against an increase of 14.9 per cent in kilowatt-hour sales), there have been no further gains, on a seasonally adjusted basis, since a peak was reached in September, 1936. One reason for this evidently lies in the accelerated rate at which rate reductions have been made in recent months, bringing revenue per kilowatt hour for residential service down to 4.69 cents in the year ended January 31, 1937, as against 4.99 cents in the year ended January 31, 1936.
>
> The rising trend of commodity prices, moreover, finds the power and light industry in a particularly vulnerable position. The increased cost of coal alone will, it is estimated, add $5,000,000 to operating costs in 1937. Labor, supplies, and material are higher. For obvious reasons much power and light construction has been postponed in recent years, and this will sooner or later have to be undertaken on the basis of the generally higher level of costs for the basic raw materials such as copper and steel and for factory wages. If the C. I. O. continues its invasion of industries having satisfactory working conditions and paying a generally high level of wages, it is difficult to see how the power and light industry can avoid its share of labor troubles. It scarcely needs to be pointed out that the sit-down strategy applied to power plants would be particularly disastrous.
>
> Though this may be borrowing trouble, one can hardly view with equanimity the steady whittling away of rates which is rapidly bringing the whole structure down to the point of diminishing returns. One member of a prominent utility commission has recently pointed out that the days of rate reductions are rapidly drawing to a close. But to the investor a matter of equal concern is or should be whether rate increases are possible in view of continued political hostility to the industry.

TAXES, of course, are another item in utility operating expenses which it takes no prophet to predict are not going down in the very near future. On the contrary, the prospect of early curtailment of Federal contributions for relief to the states, viewed in combination with the tendency of so many state governors to suggest taxing gross receipts of utilities as a politically expedient way to take care of relief would seem to indicate that the utilities will be witnessing tax increases for some time to come. And this means special taxes on utilities in addition to the possible increase in general taxes which utilities pay as well as other types of public business.

To public service commissions, whose duty it is to keep utility rates as low as possible without being hailed into court for confiscation, this tax outlook is a discouraging one. The principal difficulty is, as Chairman Riley E. Elgen of the District of Columbia Public Utilities Commission observes, that average citizens think of a taxpayer only in terms of a property holder; whereas, in truth, there is no one who is not a taxpayer unless he is already in the poorhouse. The tax collector's slogan, "Be it ever so humble, it can always be taxed," can be applied to almost everything. In the realm of utility service, with its widespread popular patronage, the disguised tax burden may turn out to be placed upon the very poor indeed—a circumstance that legislators do not advertise very much.

Discussing the desirability of publicity for indirect taxes by means of having all articles purchased or bills paid state separately the amount included for taxes, Chairman Elgen states:

> . . . . there is the matter of taxes of public service corporations subject to regulation by Federal, state, and local authorities. These embrace in the transportation field: steam and electric railroads, city transportation, cross-country truck and bus lines, taxicabs, scheduled air transportation, water carriers, pipe lines, express companies, and Pullman, Inc. Then there are communication utilities: radio, telegraph, cable, and telephone companies. Finally, there are the heating and lighting utilities: electric power and gas companies. During 1934 aggregate taxes totaling $809,000,000 were included in the cost of the services paid by the public to these companies, which amounted to $8,277,000,000. These are sums of money which should command the respect of the most cynical citizen. Neither the revenue nor the taxes of taxicabs, common and contract carrier trucks, domestic air transportation, radio companies, and many other regulated utilities, are included in these amounts.

When a patron of a public service company learns that some new form of taxation has been imposed upon the utility furnishing his service he is frequently only mildly interested. He probably has worries enough with his own bills. Perhaps he reasons that if the utility pays more taxes it will tend to reduce his own. Or perhaps he thinks that those who have such monopolies should pay more. It may be that he is cognizant of large and growing revenues of the utility, or has heard of the dividends reputed to have been paid. He possibly concludes that after all the utility can better afford, than he, to pay any additional amount the government needs for revenue.

On the other hand, if the patron also happens to be a stockholder of the utility he may deplore the imposition of more and more taxes upon his company. No doubt, he reckons the possibilities of a reduction in his own dividend checks. Perhaps he views with alarm the added burden on his company.

In either event, the effect of taxes imposed upon a utility frequently does not act as a burden upon the stockholder, nor does it afford any tax relief to the patron. As a matter of fact, because of the plain, unescapable language of court decisions any utility making no more than a fair return is exempt from all taxation in so far as it affects the payment of dividends to its stockholders. That results from court decisions which have consistently held that taxes are a part of the operating expenses and properly to be included in the charges paid by patrons of utilities.

So the patron is more concerned with utility taxes than the stockholder, although in companies making less than a fair return the stockholders' interest may be vitally affected. This is true of many of those who own shares in most transportation agencies. On the other hand, such added expenses act as a substantial bar to reduced transportation cost for those who use the service, thus tending to make the cost of transporting men and goods higher than it otherwise would be.

THE approximate amount of taxes paid by various utilities with relation to revenues as of 1934 is shown in the interesting tables prepared by Chairman Elgen:

TABLE I

PUBLIC SERVICE CORPORATIONS, 1934

	Revenues	*Taxes*
Steam railroads	$3,317,000,000	$241,000,000
Electric power	1,750,000,000	250,000,000
Telephone	950,000,000	97,000,000
City transportation	638,000,000	55,400,000
Gas	702,600,000	73,800,000
Bus transportation	393,400,000	55,400,000
Pipe lines	199,200,000	27,400,000
Telegraph and cable	109,000,000	4,300,000
Water carriers	86,000,000	1,300,000
Express companies	86,000,000	None
Pullman Co.	45,500,000	3,000,000
Grand total	$8,276,700,000	$808,600,000

TABLE II

TAXES PER DOLLAR OF SERVICE

In each dollar paid for service the users are paying these taxes:

Service	*Taxes per dollar (in cents)*
Steam railroad	7.5
City transit	8.7
Bus	14.2
Pullman	6.5
Telephone	10.2
Gas	10.5
Electric	14.5

Chairman Elgen further explains utility taxes represented by these figures:

Of this amount of revenues, business represented by $4,250,000,000 was almost exclusively subjected to state and local regulation of rates, tolls, and charges, and the remainder was subjected to Federal, state, and local regulation. This does not include the vast motor-trucking service, with taxes amounting to about $75,000,000, and other regulated business, such as taxicab, radio, and others heretofore mentioned. If the taxes included annually in the expenses of public service companies were distributed among the entire population, they would amount to $6.50 each; however, of that amount only 16 cents goes to regulatory bodies.

Finally, this matter of taxes vitally affects labor. This is illustrated most clearly in the electric power business, by the fact that the combined costs of labor and taxes in 1929 were virtually the same as that of 1935. In each of these years the gross revenues were about $2,100,000,000. The cost of labor decreased from $405,000,000 in 1929 to $328,000,000 in 1935, a decline of $77,000,000, while taxes increased $83,000,000 in the same period. The total taxes in 1935 were $260,000,000. In other words, as the expense of taxes increases the cost of labor decreases in nearly the same proportion in the electric power industry.

But this decrease in labor cost was not necessarily the result of wage reductions. (Also it must be borne in mind that these 1934 figures do not reflect any post-depression effect of the current wage demands of the laboring classes.) Chairman Elgen points out that increased use of hydrogenerated power, increased effi-

ciency of fuel generation, and increased use of natural gas all tended to reduce the relative labor factor. In any event, Chairman Elgen concludes that taxes of utilities fall most heavily on their patrons and employees. As a recent writer on the subject remarked, "You can't have your utility cake in low rates and also eat it in taxes."

—E. S. B.

WAGE DEMANDS—HOW CAN WE *MEET* THEM? By Leslie Vickers. *Transit Journal.* May, 1937.

UTILITY RATE PROBLEM BECOMING CRITICAL, IN VIEW OF RAPIDLY RISING EXPENSES. By D. W. Ellsworth. *The Annalist.* April 16, 1937.

TAXES OF REGULATED INDUSTRY. By Riley E. Elgen. *Barron's.* December 21, 1936.

St. Lawrence Project Still More Debatable Than Imminent

ONCE again President Roosevelt has pledged himself to "do everything within my power" to win early approval for the program of the St. Lawrence seaway and hydroelectric development in a recent telegram to the National Seaway Council. However, from the Canadian side of the border approval of the project seems farther away than ever. The Ontario provincial government of Premier Mitchell Hepburn is definitely against the power phases of it and it is difficult to see how the Dominion government of Premier Mackenzie King can make progress on the rest of the project without Ontario's approval and assistance. Premier King, incidentally, has not shown any too much enthusiasm for the proposal since he came to office following the defeat in the U. S. Senate of the agreement reached between his predecessor Premier Bennett and the White House.

Nevertheless, President Roosevelt's recent comment was looked upon as a part of the drive to win approval by the U. S. Senate on some new form of St. Lawrence treaty with Canada—the details of which have not even been agreed upon, much less made public. President Roosevelt's telegram, addressed to Fred J. Freestone, chairman of the National Seaway Council, was in response to a resolution adopted by that group and sent to the President. The White House telegram stated:

> Your letter of May 21st transmitting resolutions adopted by the National Seaway Council favoring early construction of the Great Lakes-St. Lawrence waterway and power project is deeply appreciated.
>
> I am in complete agreement with your declaration that "further delay in the completion, with continued loss of transportation savings and waste of power, cannot be reconciled with sound policies of economy and conservation of our natural resources." My interest in and enthusiasm for this important project has constantly increased, and I propose to do everything within my power to bring about an agreement which will start its construction at the earliest possible date.
>
> Please convey to the members of the council my hearty congratulations on the splendid accomplishments achieved during its first year of activity and my best wishes for its continuing success.

Mr. Freestone said that the executive committee of the council would meet in Washington within a short time "to tender united support of the project under treaty agreements between the United States and Canada. The proposed treaty with Canada has been held up for several years, despite pressure from President Roosevelt for ratification by the Senate.

ADDING to the controversial literature on the subject of the St. Lawrence project was a recent volume by Francis P. Kimball entitled "New York—the Canal State." Mr. Kimball, as the title would imply, addresses his remarks more to the navigation phase of the St. Lawrence project than hydroelectric development and his conclusions are defi-

Philadelphia Record

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nitely negative. In short, Mr. Kimball believes that the construction of the proposed seaway would menace the usefulness of existing waterways and railways and act to cripple great Eastern seaports. He states in part:

> Cost estimates for the St. Lawrence seaway may very well exceed the $543,429,000 shown in the treaty figures. A 20 per cent increase in the estimates would bring the total to $651,000,000. With extras and interest costs in so gigantic a work, it is not difficult to see the whole figure pushed to $800,000,000. The fact is that Hugh L. Cooper, one of the ablest hydraulic engineers in America, when he investigated the St. Lawrence project a decade ago, said it would cost $1,400,000,000 all told. This figure substantiates the $999,000,000 reached by the Brookings Institution in its detached, scientific study of the project.
>
> Critics of the treaty, including some high authorities, regard it as 80 per cent beneficial to Canada, both in navigation and power. They do not understand how it can be called a "partnership," all things considered. A casual examination does not indicate that the United States Government has been niggardly, particularly with New York state's money.
>
> Seven months a year, while the St. Lawrence and Great Lakes are open to shipping,

interior America is to be the feeder for this huge system. In the other five months the trade (one would think) is to be handed back to the Eastern states. The rail carriers then would be expected to have their rolling stock and engines waiting, manned, and in perfect condition for the winter tour of duty.

Some day, perhaps, we shall have the St. Lawrence seaway and the hydro project too. It is almost bound to come eventually unless some unforeseen development in power and transportation economics should meanwhile render it unnecessary. The real point to the present discussion is whether it is needed *now*, considering what it would cost and the resultant benefits under present conditions.

—E. S. B.

TELEGRAM by President Franklin D. Roosevelt to National Seaway Council as reported in *The New York Times*, May 29, 1937.

NEW YORK—THE CANAL STATE. By Francis P. Kimball. Argus Press.

Natural Gas in America's Switzerland

A VALUABLE and unusual study of natural gas has just been issued by the public service commission of West Virginia, for which the work was done by the State Geological Survey. It is understood that this is the first work of its kind on a statewide basis.

The study was made to establish the following information:

1. What are the heating values of gases served to the consumers in West Virginia?
2. How does the processing of natural gas affect its heating value?
3. What are the physical and chemical characteristics of the natural gases of West Virginia by localities and geological horizons?

As to the first purpose, samples were taken and tested at three different intervals from 42 representative towns and cities, thus furnishing accurate information on the heating values and composition of gases served to consumers during the year. Elaboration on the results of these data was brought out in the report.

On the second purpose, data were presented on the heating value and composition of the inlet and outlet gas being processed by 26 gasoline plants, samples being taken at two different intervals. Inasmuch as there is an increased interest in the removal of constituents (ethane, propane, butanes, etc.) other than natural gasoline, results were obtained to show the effect of such removal on the heating value of the residue gas.

To answer the third question, analyses were made on the gas produced from 176 wells distributed throughout the state and from the various producing horizons.

Production statistics in the report show that during the half-century, 1885-1935, there was produced in West Virginia approximately 8.8 trillion cubic feet of natural gas, about 25 per cent of which was wasted. The total value of the used production in this period was nearly $1,500,000,000. The estimated natural gas reserve in the state is 3 trillion cubic feet, now being produced at the rate of about 100 million cubic feet per annum.

—G. E. D.

SURVEY OF NATURAL GAS OF WEST VIRGINIA FOR WEST VIRGINIA PUBLIC SERVICE COMMISSION. By West Virginia Geological Survey. June 30, 1936.

¶ *"The installation at Muscle Shoals was a crazy production of war hysteria—to produce nitrogen from the air. It is also now advanced to bolster TVA constitutionality as necessary for national defense."*

—HUGH S. JOHNSON
Former NRA Administrator.

The March of Events

EEI Convention

SOMEWHAT in contrast with the political tone of popular discussion concerning the privately owned electric industry in the United States, the fifth annual convention of the Edison Electric Institute, held in Chicago, was marked by the emphasis placed upon technical and operating problems. For example, the possible shortage in new generating equipment in view of the current increasing demand for service and the recent wave of turbine orders, were topics which occupied a prominent place in the off-the-floor discussions of approximately 1,500 officials who were in attendance.

The official program of the convention also devoted perhaps more attention to purely "shop" topics than other recent annual meetings. The meeting opened on the afternoon of June 1st with E. J. Doyle of the Commonwealth Edison Company of Chicago, making the introductory remarks of welcome, and C. W. Kellogg, president of the Institute, presiding. The first speaker was Vice President Walter A. Forbush of the Edison Electric Illuminating Company, of Brockton, Mass., who described "six factors primarily responsible for the rapid electrification of homes in conservative New England." Community friendliness, well trained personnel dealer coöperation, promotional rates, and voluntary reductions, promoting use of appliances, and sustained sales efforts were the six factors mentioned by Mr. Forbush.

Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*, discussed the relation between education and light and admitted that "fundamental as light actually is to satisfactory living, it is only recently that scientists have given the subject the serious study necessary to determine definitely the relationship of light to the saving of vision and to health." Dr. Fishbein said that illuminating engineers have been concerned with light and its effect on the eyes much more than have the doctors.

Miss Nancy Finch, of the Utah Power and Light Company, presented an interesting paper entitled "What Women Can Do to Increase the Use of Electric Service." It discussed the purpose and organization of the "home service department" of which Miss Finch is a director and the results obtained in personally contacting women electric consumers. Earl W. Gray, of the Oklahoma Gas and Electric Company, described the accomplishments and possibilities of air conditioning with respect to the electric industry.

The morning session of the second day, June 2nd, was presided over by J. E. Davidson, of the Nebraska Power Company, vice president of the Institute. The first speaker was Mr. Philip Sporn of the American Gas and Electric Company, who referred to the recent floods in the Ohio river valley as furnishing striking proof of the usefulness of interconnection between electric utility companies. Vice President C. E. Wilson of the General Electric Company of Bridgeport, Conn., spoke on "The Electrical Standard of Living," and said that forward looking men in all branches of the electric industry are agreed that the time is at hand when electrical standards of living in homes can be applied in the same manner and with the same degree of success as they have been applied in other industries, but much faster.

Mr. H. P. Liversidge, vice president and general manager of the Philadelphia Electric Company, spoke on "Opportunities for Youth in the Electric Utility Industry." He called attention to the fact that while the electrical industry is properly considered as an attractive field for engineering, it should also be noted that it opens opportunities for accountants, lawyers, salesmen, advertising men, bookkeepers, carpenters, and various other kinds of white collar mechanical and technical workers.

Mr. N. G. Symonds, vice president in charge of sales, Westinghouse Electric and Manufacturing Company, described the manufacturing industry's stake in the operating utility business. In a discussion which followed Mr. Symonds' address, Vice President E. T. Gushee, of the Detroit Edison Company, pointed out the need for "adequate wiring of consumers' premises," to the end that the public may have the full benefit of electrical service.

The afternoon session of the second day was presided over by J. G. Holtzclaw, of the Virginia Electric and Power Company, vice president of the Institute. The first speaker of the session was Vice President J. F. Porter, Jr., of the Kansas City Power and Light Company, who spoke on the selling of utility service in the broader sense. He stressed the importance of public relations, especially with respect to utility employees, such as meter men who come into immediate contact with the consuming public.

The first formal address of the convention to deal with the political problems of the industry was that given by Bernard F. Weadock, managing director of the Institute, who warned of the dangers attending the increased power of Federal regulatory commissions. These commissions, he said, exercise the

power of all three of the regular and constitutional branches of the government but do not operate under the control of any of them, constituting instead a "headless fourth branch" of the government. He cited various abuses of authority by Federal commissions and recommended to their thoughtful consideration, suggestions for reorganization of Federal commissions, such as the report of the special committee on administrative law of the American Bar Association, which would mold all such agencies into a Federal administrative court.

"The Cost of Servicing Appliances" was the subject of a paper by Vice President R. E. Fisher of the Pacific Gas and Electric Company, who outlined the growth and expansion of appliance servicing since the days when the electrical refrigerator first came into general use. Dr. L. W. Chubb, director of Research Laboratories, Westinghouse Electric and Manufacturing Company, concluded the session with an interesting description of new products which have resulted from research within the electrical industry.

Mr. A. H. Kehoe, of the Consolidated Edison Company of New York, and vice president of the Institute, presided over the only session of the third day (June 3rd).

Following the reports of the nominating committee and the election of trustees, William E. Mitchell of the Georgia Power Company discussed the advantages of safety measures in utility operations. Mr. D. E. Karn, of the Consumers Power Company of Jackson, Mich., discussed rural electrification and W. C. Mullendore, Southern California Edison Company, discussed "Liberalism and the Electric Industry." The address of the Institute's president, C. W. Kellogg, also delivered at this session, will be reviewed in the next issue of PUBLIC UTILITIES FORTNIGHTLY.

The final session (June 4th) presided over by Mr. Kellogg, featured the various annual prize awards, an address on electric utility receivership by Dean John T. Madden of New York University, and a discussion of industrial engineering contributions to society by R. C. Muir of the General Electric Company.

Mr. Kellogg was unanimously reëlected president of the Institute. W. E. Mitchell of the Georgia Power Company was elected vice president. Paul M. Downing, Pacific Gas & Electric Company; A. H. Kehoe, Consolidated Edison of New York, and J. E. Davidson, Nebraska Power Company, were reëlected vice presidents. Bernard F. Weadock was reëlected vice president and managing director of the Institute.

Proposes Utility Companies Combine

PRIME Minister Neville Chamberlain was reported early this month to have given the nation another example of "Tory socialism" when he made public his government's recommendations for reorganization of Great Britain's electric industry.

The plans would provide for the compulsory purchase or transfer of existing power companies by methods that already were said to have raised an outcry of protest from the vested interests concerned.

At present there are as many as 626 separate organizations supplying electricity in Britain, not including the Central Electricity Board created by the government. Of these, 371 are municipal authorities and 247 are private companies. There is such a complexity of voltages, charges, and other factors of supply that the voltage of lines varies on different sides of many London streets and average price ranges from almost 8 pence a unit in some areas to a little over 2 pence in others.

To end this chaos and bring down the general level of charges, the government proposes to divide the country into thirty distribution areas, which in existing companies would be consolidated. Where one private company is clearly the most efficient in the area, it would be required to acquire all its competitors under government supervision. Where amalgamation on this basis would be too difficult, the government would authorize transfer of all existing companies in a given area to a newly constituted distribution board appointed by the government. Where two or more municipal power companies are competing in any given area they would be put under the control of a joint board.

An arbitral tribunal would be appointed by the Lord Chancellor to determine the purchase price in case of dispute.

Asks Seven Regional Agencies

PRESIDENT Roosevelt called on Congress on June 3rd to create seven national planning agencies along the lines of the Tennessee Valley Authority to conserve national resources and solve the problem of floods, droughts, and soil erosion, with the production and sale of public power as a corollary to any program presented.

Soon after the President's long-awaited message was read to Congress, two bills, largely similar in nature and wording, but differing in respect to machinery and electric power rate-making powers, were introduced. One of these was by Senator Norris and the other, said by its author to have been prepared by the administration, by Representative Mansfield, chairman of the Rivers and Harbors Committee.

The President stressed conservation as the major object of the program, as has been the policy of the administration since the Supreme Court held that the power generated at TVA dams could be sold constitutionally, as incidental to the government's power over navigable streams.

However, he asked that provision be made for administration of hydroelectric projects

undertaken as part of watershed developments, and added the "water-power resources of the nation must be protected from private monopoly and used for the benefit of the people."

Both the bills introduced made provision for the development of public water power and its sale to nonprofit agencies at low rates.

Asserting that his recommendations fall into the same class as his program for government reorganization, President Roosevelt asked Congress for action at this session on both programs.

As a start, the President recommended, and both bills contained provisions for, the establishment of seven planning agencies, to be charged with making studies and surveys, coördinating the work of other government agencies, coöperating with state and local agencies, and finally submitting to the President and Congress a series of projects for authorization.

One of the seven regional agencies would cover the Atlantic seaboard and part of the Gulf of Mexico; another, the Great Lakes and the Ohio valley; a third the valleys of the Tennessee and the Cumberland, and other rivers in the Southwest; a fourth, the valleys of the Missouri and the Red river of the North and the general Northwest; a fifth, the basins of the Arkansas, Rio Grande, and the Red river of the South; a sixth, the valleys of the Colorado, and all rivers reaching the Pacific, south of the California-Oregon line, and seventh, covering the Pacific Northwest.

Philip H. Gadsden, chairman of the Committee of Utility Executives and a vice president of the United Gas Improvement Company, termed the national resources bill introduced by Senator Norris as an outright attempt to destroy the private electric industry. He declared:

"This is the fourth of a series of Federal legislative acts designed first to weaken the credit, then to impair the efficiency, and lastly to destroy the private electric industry."

Mr. Gadsden said the purpose of the measure actually is "to make a definite start in the socialization of American industry." He continued:

"Stripped of its constitutional window dressing—such as navigation and flood control, the bill is patently a plan to TVA-ize the nation. It would be TVA multiplied by seven."

The Norris and Mansfield bills, it was said, were certain to encounter stiff opposition on general principles. A fight broke out in both chambers over which committee should handle the measure. The House Rivers and Harbors Committee finally won.

The House bill would take away the present TVA operating and rate authority and vest those powers in separate agencies and the Federal Power Commission. It was asserted that the Mansfield bill represented the changes desired by certain administration advisers and cabinet officers and was presumably approved by the President. Senator Norris was expected to vigorously oppose the House provisions.

Mansfield's bill would also give the FPC authority to determine rates. Under the Norris bill the President would have supervisory authority but could not change the rates.

Rulings Loosen Utility Curbs

THE U. S. Supreme Court at its last session before next October on June 1st made two rulings which government attorneys declared would delay the full effectiveness of New Deal legislation involving utilities. The actions were:

(1) Refusal to expedite a hearing on the constitutionality of the registration provisions of the public utility holding company act, which were upheld by the New York District Court in the Electric Bond & Share test case; (2) granting of a review to two utility companies which challenged the right of the government, through the Public Works Administration, to aid in the financing of municipal power and light plants.

In a third case involving utilities, the government lost when the court refused to prevent a trial before the Eastern Tennessee District Court to determine whether the TVA could expand its authorities in eight states.

Alabama

May Serve Georgia

ALABAMA'S electrical membership corporations may serve members in Georgia provided they have the authorization of Georgia laws, Attorney General Albert A. Carmichael said recently.

S. Gordon Persons, chairman of the Alabama Rural Electrification Authority, said, however, an Alabama membership corporation could not sell electricity at wholesale prices to a similar corporation which might be formed in Georgia. Persons pointed out that Cherokee county electric membership corporations, organized under a 1935 law, had received numerous applications from residents of the adjoining counties in the northwest section of Georgia, and to serve them would mean that lines would have to be built in that state.

California

Gas Rate Refund Denied

A UNITED States Supreme Court decision on June 1st deprived northern California gas consumers of approximately $6,000,000 in hoped for rebates from the Pacific Gas and Electric Company. The high court, in a 4 to 4 decision, upheld a ruling by three Federal judges in San Francisco, in which the state railroad commission was enjoined from enforcing an order directing the Pacific Gas and Electric Company to reduce its natural gas rates by $2,100,000 annually. Justice Sutherland did not participate.

The commission's order was originally made in 1933 and opposed by the company on the ground that it was "drastic and confiscatory," inasmuch as the company had recently expended $30,000,000 in changing from artificial to natural gas. Increasing revenues in succeeding years, however, prompted the company to voluntarily provide for an annual reduction of $2,500,000 in March, 1936.

The state commission announced it would file a petition with the Supreme Court for a rehearing of the litigation.

Approves Rate Cut

THE state railroad commission on May 25th announced that new lower electric rates for domestic and commercial customers of the Southern California Edison Company, to bring savings of $659,000 annually, had been approved, effective June 1st.

Of the total reduction domestic customers receive $456,000, or approximately 70 per cent, while the remaining $203,000 is to be divided among the company's commercial users.

The commission has completed informal investigations of a number of utilities within recent weeks which have resulted in savings to Southern California customers of more than $2,000,000 a year in their rates, it was said.

Georgia

Dam Held Feasible

THE proposed $21,244,000 Clark's Hill dam on the Savannah river on May 24th won the approval of the Federal Power Commission, which told President Roosevelt the area's potential power market was sufficient to justify the development. Roger B. McWhorter, chief engineer of the power commission, upheld a favorable report of regional Director Percy H. Thomas, and declared the demand for power "may confidently be expected to increase rapidly during the next few years."

Senator Walter F. George, of Georgia, leader of a campaign for approval of the dam, said he would take steps immediately to obtain an allotment. He said there had been no decision whether the Clark's Hill proponents would attempt legislation or ask an allocation from relief funds.

The power survey was made at the request of President Roosevelt after the National Resources Committee advised against undertaking the project without further investigation of the potential market in the Clark's Hill area.

McWhorter said private interests obtained a license several years ago to construct a $19,000,000 dam at Clark's Hill, but surrendered the license in 1932 during the depression. He cited the interests of private companies as one evidence of the project's "economic feasibility."

Illinois

Cuts Power Rates

THE Illinois-Iowa Power Company recently announced a reduction of electrical rates in the two lower consumption brackets for 10 Illinois cities, effective June 1st. Cities affected were: Granite City, Madison, Venice, Nameoki, Brooklyn, National City, Edwardsville, Woodriver, East Alton, and Roxana.

For the domestic consumer the rate was set at 75 cents for the first 15 kilowatt hours. It was formerly 75 cents for the first 14 kilowatt hours. For the next 40 kilowatt hours the rate is 4.9 cents. It was formerly 5.2 cents for the next 41 kilowatt hours. The two top brackets remain the same. However, according to E. G. Schmidtt, division manager, most consumers come under the rates reduced.

On the commercial rates, the first 30 hours' use of demand in any one month was reduced to 4.9 cents a kilowatt hour from 5.2 cents. The next 50 hours' use of demand was reduced to 3.8 cents from 4.1 cents per kilowatt hour. The two other brackets were unchanged.

Kentucky

Gas Rates Raised

A NEW schedule of gas rates for the city of Maysville was ordered last month by the state public service commission, effective June 1st. The new schedule, providing for an increase of several cents in the average charge to consumers per thousand cubic feet, was agreed to by the city of Maysville and the Kentucky Power and Light Company.

The increase, the commission said in its order, was made necessary "by the increase in the wholesale rate paid by the Kentucky Light and Power Company, which was 18 cents per thousand cubic feet and is now 30 cents per thousand cubic feet. The commission said that "it should be specifically understood that the commission does not approve of this 30 cents" charge and has undertaken an investigation "to determine fair and reasonable wholesale rates."

The new rate schedule provides for a charge of 50 cents to include the first 100 cubic feet used per month, 52 cents per thousand for the next 3,900 cubic feet, 50 cents per thousand for the next 4,000 feet, 45 cents per thousand for the next 17,000 feet, and 43 cents per thousand for all in excess of 25,000 cubic feet. The minimum monthly charge is 75 cents a meter, and a charge of 5 per cent is allowed on bills not paid in full within ten days after the date of bill.

Gives Cheap Power Rate

GOVERNOR Chandler recently announced a long step had been taken in Kentucky's program for rural electrification when the Kentucky Utilities Company filed a rate schedule for rural coöperatives that conformed to a state public service commission order issued on May 15th.

The schedule filed by the Kentucky Utilities Company would provide coöperatives with power at 1.2 cents a kilowatt hour. The state public service commission subsequently announced that four additional large utility companies had filed, or had indicated intention of filing, the special wholesale power rates for rural nonprofit coöperatives. The new companies were the Lexington Utilities Company, the Louisville Gas and Electric Company, the Kentucky Light and Power Company, and the Kentucky-Tennessee Light and Power Company. Two other companies were expected to file schedules.

The governor said the utility company's action meant success for a comprehensive rural electrification program in the state. The company's decision removed the primary obstacle to development of rural coöperatives—excessive cost of power—the governor stated.

Surveys were reported under way in nearly 50 counties for rural electrification coöperatives.

Maryland

Reach Agreement

A COMPROMISE between the Maryland Light and Power Company and the Southern Maryland Tri-County Coöperative Association, Inc., was announced on June 2nd at a hearing before the state public service commission on the association's application to provide electric service in Prince George's, Charles, and St. Mary's counties.

Counsel for the Maryland company, which now supplies electric power to some sections of southern Maryland, said that objections to the coöperative's application would be withdrawn under terms of an agreement by which the coöperative will not serve persons living in the Loveville and Morganza sections.

Subsequent to the conclusion of the hearing the commission approved the application.

Another development on the same day in the coöperative's plan was the announcement by the Rural Electrification Administration in Washington that it had executed a loan contract with the association for not more than $165,000 to aid in the establishment of its proposed 162-mile transmission line.

Minnesota

Vote Gas Referendum

BY a vote of 6 to 1, the St. Paul city council on June 4th pledged itself to submit a natural gas franchise to a public vote next spring if the Minnesota Northern Natural Gas Company makes an official franchise application. Mayor Mark H. Gehan voted no.

This action followed Commissioner H. C. Wenzel's withdrawal of an ordinance he had submitted granting the gas company permission to extend its pipeline from the Ford Motor Company plant to the Waldorf Paper Products Company plant. He withdrew the

ordinance at the request of the gas company, which originally sought its enactment.

In the council chamber ready to protest against the ordinance were representatives of coal dealers, railroad brotherhoods, coal dock operators, coke plant employees and various other groups who are fighting the extension of natural gas service to the city generally.

New Jersey

Utility Acts Lost

NEW Jersey's 161st legislature adjourned its regular 1937 session on May 28th after consigning to oblivion labor's "little Wagner Act" to set up a state labor board, and Camden's measure to make possible a municipal power plant. Both bills passed the lower house but died in senate committees.

The labor bill, patterned on the national labor relations law, was passed 51 to 1 in the assembly on May 27th after a walkout of fourteen Democrats had forced its release from the committee which had held it since its introduction February 8th.

While the legislature quit in accordance with a resolution setting another meeting for June 28th, it was said to have obliterated uncompleted legislation as effectively as if it had adjourned sine die.

New York

New Accounting System

NO specific method of determining depreciation was prescribed in the new uniform system of accounts which the state public service commission recently ordered for electric corporations in the state, contrasted to the straight-line method in the system issued by the commission in 1934, the commission announced last month. This important change resulted from a court decision on the former system interpreted as meaning that the commission may not order a specific method of accounting for depreciation. It was interpreted as a victory for the utilities.

The new accounting system will affect all electric corporations in New York state with annual revenues of more than $250,000, and is to become effective next January 1st. Companies desiring to institute the new system for all of 1937 may do so, however.

Patterned to a great extent after the prior system, the new system conflicts with provisions in the Federal regulations in only a few instances, it was reported. In many cases, the new commission system demands further subdivision of accounts, or the keeping of additional records for statistical purposes, or allows companies not subject to the Federal Power Commission to dispense with certain subdivisions or records required by the Federal system. In other cases, where the Federal system gives an option, companies in the state are restricted to one of the optional methods.

A separate system of accounts for electric utilities with revenues of from $25,000 to $250,000 a year is being drawn up by the commission. It would be simplified as much as possible and printed separately so that smaller utilities would not have to refer to the system given for larger units.

Ohio

City Loses in Gas Fight

THE city of Toledo on June 2nd lost another round in its rate fight with the Northwestern Ohio Natural Gas Company, a fight somewhat similar to that now being waged by the city of Cleveland against the East Ohio Gas Company.

The Sixth United States Circuit Court of Appeals, sitting at Covington, Ky., ruled against Toledo by upholding an injunction to restrain Toledo from enforcing a lower gas rate ordinance.

In the decision the circuit court upheld the company's contention that Federal court had jurisdiction. One of the chief claims made by Cleveland in the Federal court proceeding at Cleveland was that the court had no jurisdiction.

When completed, the project, which contemplates the construction of 743 miles of electric power lines, will serve 2,705 customers in Fairfield, Perry, and Pickaway counties. Electricity will be purchased from the Ohio Midland Light & Power Company. The wholesale rate will average about 1.35 cents per kilowatt hour, it was said by Administrator Carmody.

Oklahoma

Tests Gas Merger

AN injunction restraining the Oklahoma Natural Gas Company from acquiring lines of the Independent Natural Gas Company in east central Oklahoma was asked in district court recently in a suit filed for the state by Randell S. Cobb, assistant attorney general.

The suit alleged the Oklahoma Natural Gas Company on March 31st entered into a contract to purchase the Independent Company's holdings in Okfuskee, Hughes, Seminole, Pottawatomie, Pontotoc, and Garvin counties. The purchase price was listed as $207,500.

The state alleged the companies had not received permission for the purchase either from the legislature or the state corporation commission, and claimed the transaction would violate the constitution. Cobb said the constitution prohibits foreign public service corporations from acquiring competitive and parallel lines without approval of the legislature and the corporation commission.

George Frederickson, vice president of the Oklahoma Natural, said the suit was filed on a friendly basis to determine whether the lines are competitive. The state contended the lines run parallel, are competitive, and serve the same areas.

Pennsylvania

Commission Joins in Appeal

JOINING with the borough of Myerstown, Lebanon county, the state public utility commission on May 25th announced it had petitioned the state supreme court to permit an appeal from the judgment of the superior court, which reversed an order of the old public service commission authorizing the borough to build and operate a municipal electric plant.

The commission, in its petition, declared that it was important that "a clear and deliberate course for future cases" be provided by the court.

Signs Utility Measure

GOVERNOR Earle on May 28th affixed his signature to the public utilities regulatory bill which had been passed the previous day by the state senate by a vote of 33 to 19. The governor hailed the measure as "the high point of a battle against high-handed utilities methods which have lasted for many years."

The bill revises extensively the 1913 public service company law and allows the public utility commission more latitude than that enjoyed by its predecessor, the ousted public service commission. Provisions of the measure include a ban on the advance payment of rates by consumers, establishment of a sliding scale for computing rates, with the consumers' charges going down as the company profits increase, giving the state public utility commission the right to establish temporary charges in rate cases, authorizing the commission to fix a "fair value" on public utility property, placing the burden of proof in rate cases on the utilities, and establishment of a mandatory system of accounts for utilities.

Senate Passes County Utility Bill

THE state senate on June 1st passed, 26 to 15, Allegheny County Commissioner John J. Kane's bill empowering the county authorities to enter the utility business in virtually any field whenever a majority of the county voters approve. The bill barely received the required majority.

The bill, sponsored in the legislature by Representative Joseph A. McArdle, proposes a "county public utility administration," to be set up on approval of the voters, to acquire and operate any designated utility in the transportation, power, light, heat, water, or sewage disposal fields. The proposed "utility administration," if created, would have full power of eminent domain, and would be exempt from any control of the state commission.

South Carolina

Upholds PWA Grant

RIGHT of the Public Works Administration to make a $2,852,000 loan and grant for the Buzzard's Roost power project in Greenwood county was upheld on June 2nd by U. S. District Judge J. Lyles Glenn. Marking a new step in the case which has been fought through the circuit court of appeals and the U. S. Supreme Court, Judge Glenn upheld legality of Greenwood county's plans for the giant hydroelectric project.

The decision dismissed the petition of the Duke Power Company for a permanent injunction against Greenwood county and PWA Administrator Harold L. Ickes. The Duke Power Company had sought to enjoin grants which would have made possible construction. Also dismissed was the power company's petition for an injunction which would have prevented the country from borrowing Federal funds.

The Duke Power injunction fight over Buzzard's Roost was the first private utility challenge of propriety of such grants to reach the Supreme Court. Although Judge Glenn refused the injunction, the funds still will be tied up by the Supreme Court's recent action accepting an appeal of the Alabama Power Company and the Iowa City Light & Power Company, which kept in effect 47 similar injunctions covering some 54 power projects.

Attorneys of the Duke Power Company, after reading the decision, indicated they would carry the case up to the circuit court for another appeal.

Tennessee

Power Bill Invalid

CHANCELLOR T. B. Lytle on May 28th held unconstitutional the "electric membership corporation act" of the 1935 legislature under which Columbia had voted a bond issue for TVA power. The Tennessee Electric Power Company had attacked the act to prevent use of the bonds.

City Counselor C. A. Kennedy, however, said that under a 1937 act of the state legislature the city of Columbia would be allowed to go ahead with its $300,000 municipal TVA power system plans. Under the recent decision the Tennessee Electric Power Company still has an injunction enjoining the city from proceeding under the old act, Mr. Kennedy explained.

The court ruled that Chapter 32, Acts of 1935, was invalid because it violated the constitutional provision that no law shall be broader than its caption. Kennedy said an appeal would be taken from the chancellor's ruling.

The court ruling also affects Lewisburg and Fayetteville, which are involved in similar litigation under the electric membership act.

Adopts Power Report

UPON assurance from the power committee that its recommendations would not commit the Knoxville city council either to buy or build a municipal power plant, the council on May 26th adopted the recommendations which would bring expert engineers to the city to study the power situation. The three provisions of the recommendations were as follows:

1. Bring representatives of the firm of Burns and McDonnell to Knoxville to gather all data concerning a distribution system, and after this data is provided, institute suit against the Tennessee Public Service Company for damages as a result of its injunction recently dissolved. The injunction prevented construction of a municipal plant.

2. Make a survey of the city immediately to establish conduit districts. It was pointed out that recent legislation enables the city to require any utility to place its wires underground in conduits at its own expense.

3. Instruct the law director to report on the advisability of instituting suit to declare the Tennessee Public Service franchise void.

One of the reasons for requiring the presence of expert engineers, the committee stated, was that the PWA has recommended that it be done in order to bring plans and specifications for a municipal system up to date.

Professing a desire to buy the TPS rather than build, and promising to "do everything possible" to effect a sale, Councilman Cockrum estimated the cost to Knoxville of the TPS properties at not more than $4,500,000. He admitted that the city does not have the money and would have to borrow it, unless the TVA bought the property for the city.

Wisconsin

Questions Light Rate Variance

CITING low rates charged by the Madison Gas and Electric Company, Assemblyman Reno Trego of Merrill was successful recently in getting the state assembly to adopt a resolution requiring the public service commission to tell the legislature why rates vary from city to city.

The Trego resolution, adopted by voice vote, pointed out that during debate on the "little TVA," several assemblymen claimed Madison had the lowest utility rates in the state for the type of service given. The resolution went on to order commission representatives to come before a joint session of both houses to inform legislators where and why rates varied in different parts of the state.

The Latest Utility Rulings

Rural Electric Extension Restricted in Territory of Coöperative

AUTHORITY to make certain rural line extensions was denied to the West Tennessee Power and Light Company by the Tennessee commission where the extensions would parallel proposed lines of a coöperative membership corporation which intended to purchase power from the Tennessee Valley Authority. The coöperative association proposed to serve nearly double the number of customers regarded as prospects by the power company. The commission said:

> It appears, upon all the facts adduced at the hearing, that there is a grave probability that the authorization of the three proposed extensions of the West Tennessee Power & Light Company would seriously injure the program of the Southwest Tennessee Electric Membership Corporation. It would not only deprive this corporation of certain customers which it already has under contract, but in doing so it would increase the difficulty of extending service to other proposed customers who reside slightly further on and are proposed to be served by the coöperative, and would render the cost of furnishing service to certain groups uneconomical and prohibitive.
>
> Under this showing it would appear that the greater good to the greater number would be best served by denying to the power company the authority to construct the lines petitioned for even though this denial may temporarily embarrass some of the prospective customers who would immediately obtain electric service otherwise.

The commission discussed the problems arising from the entry of coöperative associations into the utility field, over which associations the commission had no jurisdiction. Views of the Wisconsin commission on this subject were quoted at length. *Re West Tennessee Power and Light Co. (Docket No. 2030).*

Commission Refuses to Interfere with Proposed Change in Gas Manufacture

THE New Hampshire commission, although having no authority to pass upon labor disputes, entered upon an investigation of a proposed change in the method of manufacturing gas, with particular reference to the probable costs of service and the public safety, where because of a displacement of employees a local union protested against the change. The commission refused to hold that the company, either upon grounds of public safety or probable costs of gas, should be prevented from changing from coal gas to water gas manufacture.

There was held to be nothing in the testimony to support a finding that a change to water gas production would appreciably increase the hazards to either those working in the plant or those consuming its output. On the other hand, testimony by certain of the employees showed that a real hazard to the workers existed in connection with the operation of the present coal gas plant because of the sticking of charges requiring dangerous poking for their removal. No comparable hazard, it was said, had been alleged or shown to be present in the operation of a water gas plant.

The commission was of the opinion that comparisons of average costs for plants of varying sizes and characteristics fail to give an adequate basis for conclusions as to the relative merits of coal gas and water gas operations. It was said to be apparent that each instance is to a

degree unique, and therefore that decision must be based primarily upon analysis of the particular situation. *Re Manchester Gas Co. (D-E1808).*

Gas Utility Operating without Certificate Is Subject to Regulation

THE owner of a gas utility, although operating without a certificate of convenience and necessity, was required to make reasonable improvements to render adequate service and to file rate schedules, rules, and regulations with the commission. The operator of the system had acquired the property from a corporation which had been authorized to do business in the state by the secretary of state. Two cities had each granted a franchise to that company. The owner thought that it was not necessary to obtain a certificate but was willing to submit to the jurisdiction of the commission.

The commission held that the business was being carried on as a public utility subject to the regulatory act, stating:

> . . . the commission is clothed with the power and authority to compel a utility that is already in the field rendering utility service to the public indiscriminately to render those services in such a way as to best promote the public interest, preserve the public health and protect those using such utility services, and to hold otherwise would mean that the nadir of regulation had been reached. If the same were not true the General Regulatory Act would not provide nor afford a well rounded scheme of regulation. And to conclude that a complete scheme of regulation is not provided by the regulatory act is unbelievable.
>
> In view of the fact that the defendant operating a gas company is holding himself out to serve the towns of Rich Hill and Hume, Missouri, indiscriminately as a public utility the commission deems it advisable to assume jurisdiction and require the defendant to file with the commission and publish schedules showing all rates and charges made or to be made by him, all contracts, rules and regulations relating to the rates and services, and to make annual reports as provided by statute.

Re Cyr (Case No. 9335).

Express Company's Operation at Terminals Not Motor Transportation

THE Ohio commission held that the Railway Express Agency, Inc., was not operating as a transportation company, subject to the requirements of the state Motor Transportation Act, when it engaged in receiving and delivering express shipments in a free collection and delivery zone within a municipality. Shipments handled were found to be predominantly interstate in character and the collection and delivery service, part and parcel of the transportation service, were held to be a part of the express business under the jurisdiction of the Federal authorities.

Intrastate express transportation service as carried on by the company was found to be inseparable from the interstate express transportation service, and the commission believed that to attach some condition precedent to such an operation as far as it pertained to the carrying of intrastate express would encroach upon the jurisdiction of the Interstate Commerce Commission. The commission restricted the scope of its decision, however, with the statement:

> What we have said herein pertains exclusively to motor vehicle operations by the respondent in its terminal collection and delivery service and does not contemplate motor vehicle operation over the highways of this state in the hauling of express in what is usually denominated or commonly known as line haul or over the road service.

The commission did not express any opinion as to whether the provisions of the Motor Transportation Act or of the Private Motor Carrier Act applied to

motor operations in terminal collection and delivery service outside of municipalities when conducted or carried on under contract or lease or otherwise than by the express company itself, as such question was not before it in the immediate proceeding. *Re Railway Express Agency, Inc. (Citation Case No. 52).*

Matters Considered on Application for More Time within Which to Sell Bonds

AFTER a commission has considered all the necessary factors affecting approval of a bond issue, it need not go into those questions again at a later date when authority is asked to extend the time within which the bonds may be sold, if no evidence has been introduced to refute the previous finding by the commission. Such was the determination of the Missouri commission on an application for a time extension.

The issuance of mortgage bonds had been authorized in 1931 to sell at 94 per cent of par and to bear interest at 5 per cent. Because of franchise difficulties and the condition of the bond market, the sale of the bonds had not been accomplished. The commission held that it had authority to ascertain and determine what power and authority was vested in the commission as a matter of law, that a net earnings provision of the mortgage related to net earnings prior to the original authorization of the bonds rather than earnings at the time of application for a time extension, that the commission had no power to make any orders with respect to a depreciation reserve voluntarily created, and that on the application for a time extension the only matter to be considered was whether the company should be allowed additional time. The commission said that it must assume that the original order was properly issued.

However, the commission found that since the bond market had greatly improved, the bonds should not be sold at less than 96 per cent of par value at an interest rate of 4 per cent. *Re Kansas City Gas Co. (Case No. 7751).*

Argument on Exclusive Federal Jurisdiction Not Allowed to Interrupt Authorized Changes

THE New Jersey Board of Public Utility Commissioners last January authorized a change of passenger service on application by the Pennsylvania Railroad Company in the city of Newark. Work was begun and substantial sums of money expended. Almost three months later an association organized after issuance of the order filed a petition for a rehearing. Waiving the fact that the association was not in existence at the time of making the decision, the board set the petition down for argument and, after argument, denied a rehearing.

The contention was advanced that the board was without jurisdiction of the application originally made and disposed of by its decision. The proposition was advanced that the facilities involved were facilities of interstate transportation and that Congress had vested jurisdiction over the matters involved in the Interstate Commerce Commission as a result of which neither the state of New Jersey nor the board had jurisdiction. The board disposed of this argument with the statement:

> This proposition is, it is true, not free from doubt. But it is not so clear as to justify this board, independent of court determination, to refuse to exercise the jurisdiction which the state by statute has vested in it.
>
> If the position that this board is without jurisdiction and that the Interstate Commerce Commission has exclusive jurisdiction stands, the decision of this board is without effect, and does the present peti-

tioners, who have heretofore rested inactively on their rights, no harm. As the brief on their behalf asserts, they "as parties in interest" may file a bill to enjoin the work; and if their position is sound and their rights have not been lost through laches, the courts will grant them relief.

To ask this board now, after work under its decision has been under way for many months, and substantial sums have been expended on the basis of that decision, and at a time that unification of transportation facilities in Newark approaches completion, a project to which the city has contributed funds mounting into the millions, to determine that the board was wholly without jurisdiction to make the decision that it did, or any other decision, on the application originally made is to make a request to which this board cannot accede.

Park Place Civic Asso. v. Pennsylvania Railroad Co.

Small Operator Failing to File Rates and Reports Held to Be a Public Utility

NEITHER the acceptance of a permit granted by a town board nor the failure of the owner of a small electric system to file rates and annual reports is conclusive of the question as to his status, according to a ruling of the Wisconsin commission. If he is actually professing to serve the public and rendering service under such profession, he is a public utility within the definition of the Wisconsin statute.

The fact that before commencing service such an operator had received from a town board an instrument purporting to be an exclusive franchise and the fact that thereafter he had commenced and maintained service without denial of the same to anyone on the ground that he was not obligated to serve the public seemed to the commission to outweigh the presumption which might arise either from the small number of customers served or from his failure to comply with his statutory duties with respect to the filing of rates and reports. The commission concluded that such an operator had been operating as a public utility. *Re Novy (GA-348).*

Other Important Rulings

THE Indiana commission, in authorizing new rate schedules upon a change from manufactured gas to natural gas, with a consequent increase in B. T. U. per cubic foot from 570 to 1,000, found that "the utilization value to a gas consumer of gas of whatever heating value per cubic foot is, with suitable adjustment of his gas appliances, approximately proportionate to the number of heating units contained in the gas." As a result it was found that each of the proposed new schedules provided substantial reductions for gas consumers. *Re Public Service Co. of Indiana (No. 12541).*

The Wisconsin commission, in fixing rates for railroad transportation of sand, held that the rates prescribed by the Interstate Commerce Commission were above a reasonable maximum level, while present rates were below such a level. The commission said that no removal of discrimination against interstate commerce was justified if an excessive rate must be established to accomplish the removal, and that the state commission could not lawfully, in the name of coöperation, render its powers as to determining the reasonableness of rates and, furthermore, it did not propose to do so. *Re Chicago & North Western Railway Co. et al. (Docket No. 2-R-423).*

NOTE.—The cases above referred to, where decided by courts or regulatory commissions, will be published in full or abstracted in *Public Utilities Reports.*

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Points of Special Interest

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TITLES

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v.

Public Utilities Commission of Ohio

[No. 539.]

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[April 26, 1937.]

APPEAL *from decree of the Supreme Court of Ohio affirming a Commission order requiring a telephone company to refund rates found by the Commission to be excessive; reversed and remanded. For lower court decision, see 131 Ohio St. 539, 15 P.U.R.(N.S.) 443, 3 N. E. (2d) 475.*

APPEARANCES: Karl E. Burr, of Columbus, Ohio, and W. H. Thompson, of Indianapolis, Indiana, argued the cause for appellant; Donald C.

Power and W. W. Metcalf, both of Columbus, Ohio, argued the cause for appellee.

Mr. Justice CARDOZO delivered the opinion of the court: The rates chargeable by the appellant, the Ohio Bell Telephone Company, for intrastate telephone service to subscribers and patrons in Ohio are the subject matter of this controversy.

Appellant was reorganized in September, 1921, by consolidation with the Ohio State Telephone Company, till then a competitor. Soon afterwards it filed with the Public Utilities Commission of the state schedules of new rates to be charged in those communities where an increase was desired for the unified service. Except in the case of toll charges the rates were not statewide, but were separately stated for each of the company's exchanges, of which there were many. By the statutes then in force (the Robinson Law, passed December 19, 1919, 108 Ohio Laws 1094, as amended by the Pence law, passed April 4, 1923, 110 Ohio Laws 366), the operation of an increase might be suspended for 120 days, at the end of which time the rate was to go into effect upon the filing of a bond for the repayment to consumers of such portion of the increased rate as the Commission upon final hearing should determine to have been excessive, with interest thereon. Construing these statutes the Ohio courts have held that a refund must be limited to rates collected under a bond, jurisdiction being disclaimed when that condition was not satisfied. Lima v. Public Utilities Commission (1922) 106 Ohio St. 379, 386, P.U.R.1923E, 577, 140 N. E. 147; Great Miami Valley Taxpayers Asso. v. Public Utilities Commission (1936) 131 Ohio St. 285, 286, 15 P.U.R.(N.S.) 175, 2 N. E. (2d) 777. Some of the new exchange schedules were the subject of protests, and in proceedings to revise them (known as Pence law proceedings) were made effective by bonds, a separate one for each exchange. Protest was also aimed at the new schedule for toll service which was to apply throughout the state. On the other hand, schedules for other exchanges became effective without protest and therefore without bond, and are not now at issue.

By October, 1924, thirty-one Pence law proceedings aimed at separate exchanges had been begun, but had not been fully tried. Already several thousand pages of testimony had been taken and many exhibits received in evidence. Soon afterwards, twelve additional proceedings were begun, making the total number forty-three, exclusive of the toll case. Two other proceedings were started later on. While the number stood at forty-three, the Commission of its own motion, by order dated October 14, 1924, directed a company-wide investigation of appellant's property and rates, and consolidated the bond cases therewith. The order recites that in all the pending proceedings the important issues are identical, and that a single consolidated case will enable rates to be determined for all services within the state at a minimum expenditure of time and money. Accordingly, the company was required to file with the Commission on or before December 1, 1924, a complete inventory of all

its property, used and useful in its business, and upon the filing of such inventory, the consolidated case was to "proceed to a hearing for the determination of the fair value of said property and of the just and reasonable rates for the service thereby to be furnished by said company to its patrons throughout the state of Ohio." The statewide investigation thus initiated, as distinguished from the Pence Law proceedings consolidated therewith, had its legal basis in provisions of the General Code of Ohio (§§ 499-8, 499-9), and its scope was confined to the rates chargeable in the future (§ 614-23), the Pence law being the basis for any refund of rates collected in the past. The statute (§ 499-9) makes it mandatory that in fixing rates for the future, the Commission shall ascertain the value of the property as "of a date certain" to be named. The date adopted for that purpose was June 30, 1925.

The company filed an inventory as required by the Commission with supplemental inventories every six months thereafter showing additions and retirements. A long investigation followed, the evidence being directed in the main to the value of the property on the basis of historical cost and cost of reproduction, and to the deductions chargeable to gross revenues for depreciation reserve and operating expenses generally. As early as February, 1927, the case was submitted to the Commission for the fixing of a tentative value as of the date certain, a tentative value being subject under the Ohio Code to protest and readjustment. At the request of the attorney general, however, the proceeding was reopened and new evidence introduced. At last, on January 10, 1931 (P.U.R.1931B, 46) the Commission announced its tentative conclusion. The valuation then arrived at was $104,282,735, for all the property within the state, whether used in interstate or in intrastate business. Protests were filed both by the company and by the state and municipalities. They were followed by new hearings. On January 16, 1934 (2 P.U.R.(N.S.) 113) the Commission made its findings and order setting forth what purports to be a final valuation. The intrastate property as of June 30, 1925, was valued at $93,707,488; the total property, interstate and intrastate, at $96,422,276.

The Commission did not confine itself, however, to a valuation of the property as of the date certain. It undertook also to fix a valuation for each of the years 1926 to 1933 inclusive. For this purpose it took judicial notice of price trends during those years, modifying the value which it had found as of the date certain by the percentage of decline or rise applicable to the years thereafter. The first warning that it would do this came in 1934 with the filing of its report. "The trend of land valuation was ascertained," according to the findings, "from examination of the tax value in communities where the company had its largest real estate holdings." "For building trends resort was had to price indices of the Engineering News Record, a recognized magazine in the field of engineering construction." "Labor trends were developed from the same sources." Reference was made also to the findings of a Federal

court in Illinois (Illinois Bell Teleph. Co. v. Gilbert, 3 F. Supp. 595, 603, P.U.R.1933E, 301) as to the price levels upon sales of apparatus and equipment by Western Electric, an affiliated corporation. The findings were not in evidence, though much of the testimony and exhibits on which they rested had been received by stipulation for certain limited purposes, and mainly to discover whether the prices paid to the affiliate were swollen beyond reason.[1] Cf. Dayton Power & Light Co. v. Ohio Pub. Utilities Commission (1934) 292 U. S. 290, 295, 78 L. ed. 1267, 1272, 3 P.U.R.(N.S.) 279, 54 S. Ct. 647. The Commission consulted these findings as indicative of market trends and leaned upon them heavily. By resort to these and cognate sources, the value at the beginning of 1926 was fixed at 98.73 per cent of the value at the date certain; the 1927 value at 95.7 per cent; the 1928 value at 95 per cent; the 1929 value at 96.3 per cent; the 1930 value at 92.2 per cent; the 1931 value at 86.6 per cent; the 1932 value at 76.8 per cent; the 1933 value at 79.1 per cent. Upon that basis the company was found to have been in receipt of excess earnings of $13,289,172, distributed as follows: for 1925, $1,822,647; for 1926, $2,041,483; for 1927, $1,986,610; for 1928, $1,925,301; for 1929, $1,463,347; for 1930, $1,481,689; for 1931, $1,659,760; for 1932, $908,335; for 1933, nothing. The excess was arrived at by figuring a return of 7 per cent upon the value as a reasonable rate for the years 1925 to 1929, inclusive; 6.5 per cent for the years 1930 and 1931; and 5.5 per cent for the years 1932 and 1933. There being no excess revenue for the year 1933, the last year covered by the report, the Commission did not fix any percentage of reduction for the rates in future years. It did, however, prescribe a refund of the full amount of the excess for the years in which excess earnings were found to have been realized. The statewide proceeding to fix rates for the future on the basis of a date certain was thus transformed finally into a refund proceeding, similar in function to proceedings under the Pence law for the refund of charges collected under bonds. The report of the Commission determining the excess was signed by a majority of the members, the Chairman dissenting. It was accompanied by an order similar in tenor.

The company protested and moved for a rehearing. In its protest it stated that the trend percentage accepted in the findings as marking a decline in values did not come from any official sources which the Commission had the right to notice judicially; that they had not been introduced in evidence; that the company had not been given an opportunity to explain or rebut them; and that by their use the Commission had denied

[1] The stipulation states that the testimony and exhibits "shall, however, be considered upon four issues involved in this cause and four only, viz.:

"1. The earnings of the Western Electric and the reasonableness of such earnings.

"2. The cost to the American Telephone and Telegraph Company of rendering services under the license contract and the reasonable amount which should be allocated in that respect to The Ohio Bell Telephone Company.

"3. The separation and apportionment of the property, revenues, and expenses of The Ohio Bell Telephone Company as between its intrastate and interstate property, revenues, and expenses.

"4. Rate of return."

a fair hearing in contravention of the requirements of the Fourteenth Amendment. Demand was made that an opportunity be conceded for explanation and rebuttal; demand was made also that the company be permitted to submit evidence showing separately for each year the fair value of its property, its revenues, expenses, and net income in each of the several cases wherein rates had been collected under bond. This last was a renewal of a demand which had been made several times in the course of the inquiry, as the Commission in its report concedes. By order dated March 1, 1934, the protests were overruled, and the demands rejected. By order dated July 5th of the same year the Commission modified to some extent its findings as to the excess income referable to bonded rates, and directed the company to show cause why refunds of the excess should not be made upon that basis. Again there was protest with a renewal of the request that evidence be received along the lines already indicated. Again the Commission reaffirmed its previous position.

The outcome of these maneuvers was the filing of a final order, dated September 6, 1934, apportioning the excess income between bonded and nonbonded rates by allocating to the former class a total of $11,423,137 for exchange subscribers and $409,127 for toll patrons (in all $11,832,264) and directing payment accordingly. Distribution was to be made among the several exchanges upon the basis of the percentage relation of the gross exchange revenues in the exchanges where bonds were in effect to the total gross exchange revenues, bonded and unbonded. If even a single rate in a particular exchange, e. g., in the city of Cleveland, had been collected under bond, all the revenues of that exchange were included in reckoning the percentage of the total that should go to the Cleveland customers. So much of the excess as was not used up in that way was apportioned to the tolls. This method of allocation was made the subject of another protest, the company insisting that it was arbitrary and unequal and a denial of due process. Petitions in error were filed with the supreme court of Ohio in accordance with the state practice (General Code, § 544 et seq.) to review the final order of September 6, 1934, and the several intermediate orders supporting it. There was timely and adequate assertion of the infringement of the petitioner's rights under the Fourteenth Amendment. The supreme court of Ohio affirmed with an opinion per curiam. (1936) 131 Ohio St. 539, 15 P.U.R.(N.S.) 443, 3 N. E. (2d) 475. The case is here upon appeal. Judicial Code, § 237, 28 USCA, § 344.

[1, 2] *First:* The fundamentals of a trial were denied to the appellant when rates previously collected were ordered to be refunded upon the strength of evidential facts not spread upon the record.

The Commission had given notice that the value of the property would be fixed as of a date certain. Evidence directed to the value at that time had been laid before the triers of the facts in thousands of printed pages. To make the picture more complete, evidence had been given as to the value at cost of additions and

retirements. Without warning or even the hint of warning that the case would be considered or determined upon any other basis than the evidence submitted, the Commission cut down the values for the years after the date certain upon the strength of information secretly collected and never yet disclosed. The company protested. It asked disclosure of the documents indicative of price trends, and an opportunity to examine them, to analyze them, to explain and to rebut them. The response was a curt refusal. Upon the strength of these unknown documents refunds have been ordered for sums mounting into millions, the Commission reporting its conclusion, but not the underlying proofs. The putative debtor does not know the proofs today. This is not the fair hearing essential to due process. It is condemnation without trial.

[**3–5**] An attempt was made by the Commission and again by the state court to uphold this decision without evidence as an instance of judicial notice. Indeed, decisions of this court were cited (Atchison, T. & S. F. R. Co. v. United States [1932] 284 U. S. 248, 260, 76 L. ed. 273, 280, 52 S. Ct. 146; Dayton Power & Light Co. v. Ohio Pub. Utilities Commission, *supra;* Central Kentucky Nat. Gas Co. v. Kentucky R. Commission [1933] 290 U. S. 264, 274, 78 L. ed. 307, 314, 3 P.U.R.(N.S.) 384, 54 S. Ct. 154) as giving support to the new doctrine that the values of land and labor and buildings and equipment, with all their yearly fluctuations, no longer call for evidence. Our opinions have been much misread if they have been thought to point that way. Courts take judicial notice of matters of common knowledge. 5 Wigmore, Evidence, §§ 2571, 2580, 2583; Thayer, Preliminary Treatise on Evidence, pp. 277, 302. They take judicial notice that there has been a depression, and that a decline of market values is one of its concomitants. Atchison, T. & S. F. R. Co. v. United States, *supra;* Dayton Power & Light Co. v. Ohio Pub. Utilities Commission, *supra;* and Central Kentucky Nat. Gas Co. v. Kentucky R. Commission, *supra.* How great the decline has been for this industry or that, for one material or another, in this year or the next, can be known only to the experts, who may even differ among themselves. For illustration, a court takes judicial notice of the fact that Confederate money depreciated in value during the war between the states (Wood v. Cooper [1871] 2 Heisk. [58 Tenn.] 441, 447; Hix v. Hix [1885] 25 W. Va. 481, 484), but not of the extent of the depreciation at a given time and place. Modawell v. Holmes (1867) 40 Ala. 391, 405. Cf. Feemster v. Ringo (1827) 5 T. B. Mon. (21 Ky.) 336, 337; Baxter v. McDonnell (1898) 155 N. Y. 83, 93, 49 N. E. 667, 40 L.R.A. 670. The distinction is the more important in cases where as here the extent of the fluctuations is not collaterally involved but is the very point in issue. Moreover, notice, even when taken, has no other effect than to relieve one of the parties to a controversy of the burden of resorting to the usual forms of evidence. Wigmore, Evidence, § 2567; 1 Greenleaf, Evidence, 16th ed. p. 18. "It does not mean that the opponent is prevented from disputing the mat-

ter by evidence if he believes it disputable." Ibid. Cf. Shapleigh v. Mier (1937) 299 U. S. —, 81 L. ed. —, 57 S. Ct. 261. Such at least is the general rule, to be adhered to in the absence of exceptional conditions. Here the contention would be futile that the precise amount of the decline in values was so determinate or notorious in each and every year between 1925 and 1933 as to be beyond the range of question. So much is indeed conceded on the face of the report itself. No rational concept of notoriety will include these variable elements. True, the category is not a closed one. "The precedents of former judges, in declining to notice or assenting to notice specific facts, do not restrict the present judge from noticing a new fact, provided only that the new fact *is* notorious to the community." 5 Wigmore, Evidence, § 2583. Even so, to press the doctrine of judicial notice to the extent attempted in this case and to do that retroactively after the case had been submitted, would be to turn the doctrine into a pretext for dispensing with a trial.

What was done by the Commission is subject, however, to an objection even deeper. Cf. Brown v. New Jersey (1899) 175 U. S. 172, 174, 44 L. ed. 119–121, 20 S. Ct. 77; West v. Louisiana (1904) 194 U. S. 258, 262, 48 L. ed. 965, 969, 24 S. Ct. 650. There has been more than an expansion of the concept of notoriety beyond reasonable limits. From the standpoint of due process—the protection of the individual against arbitrary action—a deeper vice is this, that even now we do not know the particular or evidential facts of which the Commission took judicial notice and on which it rested its conclusion. Not only are the facts unknown; there is no way to find them out. When price lists or trade journals or even government reports are put in evidence upon a trial, the party against whom they are offered may see the evidence or hear it and parry its effect. Even if they are copied in the findings without preliminary proof, there is at least an opportunity in connection with a judicial review of the decision to challenge the deductions made from them. The opportunity is excluded here. The Commission, withholding from the record the evidential facts that it has gathered here and there, contents itself with saying that in gathering them it went to journals and tax lists, as if a judge were to tell us, "I looked at the statistics in the Library of Congress, and they teach me thus and so." This will never do if hearings and appeals are to be more than empty forms.

[6] We have pointed out elsewhere that under the statutes of Ohio no provision is made for a review of the order of the Commission by a separate or independent suit. West Ohio Gas Co. v. Ohio Pub. Utilities Commission (No. 1) (1935) 294 U. S. 63, 68, 79 L. ed. 761, 767, 6 P.U.R. (N.S.) 449, 55 S. Ct. 316. A different question would be here if such a suit could be maintained with an intermediate suspension of the administrative ruling. Porter v. Investors Syndicate (1932) 286 U. S. 461, 470, 76 L. ed. 1226, 1231, 52 S. Ct. 617; United States v. Illinois C. R. Co. (1934) 291 U. S. 457, 463, 78 L. ed. 909, 917, 54 S. Ct. 471; Nickey v. Mississippi (1934) 292 U. S. 393,

396, 78 L. ed. 1323, 1325, 54 S. Ct. 743; Wells Fargo & Co. v. Nevada (1918) 248 U. S. 165, 168, 63 L. ed. 190, 192, 39 S. Ct. 62. Cf. Norwegian Nitrogen Products Co. v. United States (1933) 288 U. S. 294, 318, 77 L. ed. 796, 808, 53 S. Ct. 350. In Ohio the sole method of review is by petition in error to the supreme court of the state, which considers both the law and the facts upon the record made below, and not upon new evidence. In such circumstances judicial review would be no longer a reality if the practice followed in this case were to receive the stamp of regularity. To put the problem more concretely: how was it possible for the appellate court to review the law and the facts and intelligently decide that the findings of the Commission were supported by the evidence when the evidence that it approved was unknown and unknowable? In expressing that approval the court did not mean that traveling beyond the record, it had consulted price lists for itself and had reached its own conclusion as to the percentage of decline in value from 1925 onwards. It did not even mean that it had looked at the particular lists made use of by the Commission, for no one knows what they were in any precise or certain way. Nowhere in the opinion is there even the hint of such a search. What the supreme court of Ohio did was to take the word of the Commission as to the outcome of a secret investigation, and let it go at that. "A hearing is not judicial, at least in any adequate sense, unless the evidence can be known." West Ohio Gas Co. v. Ohio Pub. Utilities Commission (No. 1) *supra*; Cf. Interstate Commerce Commission v. Louisville & N. R. Co. (1913) 227 U. S. 88, 91, 57 L. ed. 431, 33 S. Ct. 185; United States v. Abilene & S. R. Co. (1924) 265 U. S. 274, 288, 68 L. ed. 1016, 1022, 44 S. Ct. 565; Chicago Junction Case (Baltimore & O. R. Co. v. United States [1924]) 264 U. S. 258, 263, 68 L. ed. 667, 673, 44 S. Ct. 317.

[**7–9**] Regulatory Commissions have been invested with broad powers within the sphere of duty assigned to them by law. Even in quasi judicial proceedings their informed and expert judgment exacts and receives a proper deference from courts when it has been reached with due submission to constitutional restraints. West Ohio Gas Co. v. Ohio Pub. Utilities Commission (No. 1) *supra*; West Ohio Gas Co. v. Ohio Pub. Utilities Commission (No. 2) (1935) 294 U. S. 79, 79 L. ed. 773, 6 P.U.R.(N.S.) 459, 55 S. Ct. 324; Los Angeles Gas & E. Corp. v. California R. Commission, 289 U. S. 287, 304, 77 L. ed. 1180, 1191, P.U.R.1933C, 229, 53 S. Ct. 637. Indeed, much that they do within the realm of administrative discretion is exempt from supervision if those restraints have been obeyed. All the more insistent is the need, when power has been bestowed so freely, that the "inexorable safeguard" (St. Joseph Stock Yards Co. v. United States [1936] 298 U. S. 38, 73, 80 L. ed. 1033, 1052, 14 P.U.R.(N.S.) 397, 56 S. Ct. 720) of a fair and open hearing be maintained in its integrity. Morgan v. United States (1936) 298 U. S. 468, 480, 80 L. ed. 1288, 1294, 59 S. Ct. 906; Interstate Commerce Commission v. Louisville & N. R. Co. *supra*. The right to such a hearing is one of "the

rudiments of fair play" (Chicago, M. & St. P. R. Co. v. Polt [1914] 232 U. S. 165, 168, 58 L. ed. 554, 555, 34 S. Ct. 301) assured to every litigant by the Fourteenth Amendment as a minimal requirement. West Ohio Gas Co. v. Public Utilities Commission (No. 1), (No. 2) *supra*; Brinkerhoff-Faris Trust & Sav. Co. v. Hill (1930) 281 U. S. 673, 682, 74 L. ed. 1107, 1114, 50 S. Ct. 451. Cf. Norwegian Nitrogen Products Co. v. United States, *supra*. There can be no compromise on the footing of convenience or expediency, or because of a natural desire to be rid of harassing delay, when that minimal requirement has been neglected or ignored.

In an endeavor to sustain the judgment the state shifts its line of argument from the course pursued below, so far, at least, as the course then followed is reflected in the record. Both the Commission and the supreme court of Ohio tell us that they have applied the price trends to the value on the day certain by resort to judicial notice. The state now suggests that whatever the court or the Commission may have professed to be doing, there was a basis in the evidence for the conclusion ultimately reached. To give aid to that suggestion reference is made to the findings of a Federal court as to the prices charged by Western Electric for telephone equipment, which findings were not in evidence, though they were founded upon evidence received by stipulation for purposes narrowly defined and exclusive of any others. The terms of the stipulation have already been stated in this opinion. Even if we assume in favor of the state that the evidence, when in, could be considered as indicative of the trend of market values generally, the judgment is not helped. The Commission did not take the prices paid by appellant to the affiliated corporation as the only evidence of market trends, but merely as one factor along with many others. What weighting it gave them the record does not disclose, and the Commission denied the appellant an opportunity to inquire. According to appellant's computation, telephone apparatus and equipment make up less than 30 per cent of the value of appellant's plant. Even for that portion of the plant, the Western Electric prices were not accepted as decisive, but were supplemented and corrected from sources dehors the record. For the other 70 per cent, they were without probative significance, at all events until supplemented by evidence that the decline in the value of apparatus and equipment was less than that in the value of land or buildings or other components of the plant. To fix the value of these components the Commission had recourse to statistics which it collected for itself. "There was no suitable opportunity through evidence and argument . . . to challenge the result." West Ohio Gas Co. v. Public Utilities Commission (No. 1) *supra*.

[**10, 11**] *Second:* The appellant has not estopped itself from objecting to the use of price trends gathered in its absence.

The company did not oppose the consolidation of the statewide investigation with the Pence law proceedings. This did not amount, however, to a waiver of its right to have the value of its property determined upon evidence. At no stage of the inquiry

was there any suggestion by the Commission that a different course would be pursued. We have no need to consider how the separate proceedings would have been affected by a valuation of the property in the general investigation if the evidence of value had been gathered in the usual way. In the thought of the state such a course would have obviated the necessity for separate evidence of value as to the exchanges under bond, but the company contended otherwise and made offers of proof in support of its contention. The merits of the opposing views in that regard may be put aside as irrelevant upon the record now before us. What is certain in any event is this, that nothing in the course of the trial gave warning of the purpose of the Commission, while rejecting evidence of value in respect of exchanges under bond, to wander afield and fix the composite value of the system without reference to any evidence, upon proofs drawn from the clouds. As there was no warning of such a course, so also there was no consent to it. We do not presume acquiescence in the loss of fundamental rights.

[12] *Third:* The allocation of excess income among the subscribers to exchanges and also among toll patrons is challenged by the appellant, the state retorting with the contention that there has been no denial of due process in the manner of partition, whatever may be said as to the possibility of inaccuracy or error.

We find it unnecessary at this time to choose between these two contentions. A court is not required to define the proper method of allocation until there has been a proper ascertainment of the thing to be allocated. When that has been done, there may be agreement or acquiescence in respect of the manner of division. Moreover, upon another hearing the problem may be eliminated if value, revenues, and expenses are proved for each exchange.

Fourth: The same reasons that made it unnecessary to fix the method of allocation relieve us of the duty of passing upon other problems, such as those of going concern value and depreciation reserve, which cannot be disposed of adequately until the value of the physical plant has first been ascertained.

The decree is reversed and the cause remanded for further proceedings not inconsistent with this opinion.

Ordered accordingly.

ARIZONA CORPORATION COMMISSION

Re Arizona General Utilities Company

[Docket No. 6663-E-531, Decision No. 8801.]

Discrimination, § 27 — Objective rates — Electricity.

1. A system of objective rates is impractical, and because of its discriminatory nature it falls within the ban of the law when it results in consumers

of the same class, using about the same amount of electrical energy, being charged substantially different rates, p. 317.

Rates, § 134 — Reasonableness — Comparisons.

2. Comparison of rates for similar services in other communities of the state where conditions are not substantially different may be used as a measure by which to test the reasonableness of rates, p. 318.

Depreciation, § 51 — Electric utility.

3. A depreciation reserve of 2½ per cent was held to be adequate for an electric utility, p. 320.

Return, § 87 — Electric utility.

4. Rates were fixed for an electric utility calculated to earn a return of 6 per cent, p. 320.

[March 25, 1937.]

INVESTIGATION *on motion of the Commission concerning rates of an electric utility; new rate schedules established.*

APPEARANCES: Headman & Ferguson, by Sam Headman, for Commission; Sam Cobb and Dean Lewis, for Arizona General Utilities Co.; Jesse Udall and Gilbert Wheelock, for city of Safford.

By the COMMISSION: Early in 1936 a formal complaint was filed with the Commission, signed by ninety-six of the consumers of the Arizona General Utilities Company of Safford alleging that the rates charged by the said Arizona General Utilities Company were excessive and requesting the Commission to institute a formal proceeding for the purpose of determining and prescribing just rates, rules, and regulations.

On March 13, 1936, the Commission issued its notice of investigation in the premises, and thereafter proceeded to employ engineers to make a valuation of the properties. The valuation having been completed, the Commission on September 2, 1936, set the cause for hearing at Safford on Friday, September 25, 1936. Respondent requested the privilege of filing a brief but failing to do so within the specified period, the cause is now ready for disposition.

Safford is the county seat of Graham county and the center of a large farming community located along and adjacent to the Gila river. It is one of the oldest communities in the state having been settled by the Mormons who emigrated to this state from Utah in the early 70's. The people of this community have carved out of the desert, under many handicaps and great difficulties, a farming district of unsurpassed fertility and through industry, energy, and hard labor, have builded a unit of our commonwealth which is the pride of all our citizens. The development of the city of Safford has been gratifying, particularly over the last fifteen or twenty years. The records of this Commission show that less than a score of years ago it was a mere struggling village without modern conveniences in the way of water and electric service. Commencing with a small gas engine, elec-

trical energy was supplied for a few hours each day and during the early night period. After 11:30 P.M., oil lights and candles had to be resorted to. The growth was small but steady.

The present operators came into possession of the property about 1928. The plant was enlarged and many improvements and betterments including extensions of service have been effected. The volume of consumption has now reached a point where permanency may be assumed as certain. Along with all other kindred companies, it has been faced with many difficulties during the period of the depression. The return of something near normal business conditions warrants the assumption that these troubles have practically passed out of the picture. Successful and profitable operations now appear to depend upon maintenance of satisfactory service at rates within the ability of the people to pay, which must, of course, at the same time result in a reasonable rate on the investment. History and experience justify the belief that this result can be achieved more quickly if the relations between the consumers and the company are cordial and coöperative.

[1] In its efforts to create volume consumption, respondent established a few years ago what has, by common consent, and usage, come to be called "objective rates." The prime purpose, of course, was to increase consumption to such an extent that the unit cost of service would be lessened and the aggregate of net profits increased or at least maintained on a basis that the company itself considered could be endured. The experiment has been measurably satisfactory to the respondent but in a very large way disappointing to the consumers. It has resulted in glaring discriminations and it is not apparent that under any plan that might be adopted this feature of the service could be justified. It is not only statutory law, but common sense and fair play, that discriminations cannot be permitted as between consumers or subscribers of public service corporations. In this instance, it has been found that two consumers side by side using about the same amount of electrical energy have been charged substantially different rates. The requirement that in order to make objective rates available, the consumer must use a larger volume of energy than the year previous, obviously cannot be made to work equitably and that is particularly true with reference to the household or domestic consumer. If we assume that John Doe is using all the electric energy that he needs, any excess over that amount would be of no added advantage or value, then it is manifest that to compel him to use a larger quantity would be wasteful and wholly unjustified. Perhaps the commercial user, particularly the merchant who takes advantage of window displays and similar methods of advertising, might advantageously, and possibly with profit, increase his consumption and thereby bring his service within the announced purpose of the objective rates. We are of the opinion, however, that this system of rates is impractical and that because of its discriminatory nature, it falls within the ban of our law.

Due in a measure, perhaps, to the fact that there were several changes of ownership, previous to the time

that the present company acquired control, the early records are so incomplete that it is not possible to determine the historical value of the property. For this reason, we are unable to determine with any degree of accuracy, reasonableness of the figures representing intangibles, going value, and depreciation reserve.

The findings of value and other data by the engineers employed by the Commission, as of September 1, 1936, are reflected in the following table. See Schedule A. [Table omitted.]

The additions to the reconstruction cost less depreciation in the above table were added by this Department from reports filed by the respondent subsequent to September 30th.

The following table sets forth the values shown by the annual reports filed with this Commission for the respective years. To what extent these figures carry back of 1930, we are not able to determine. See Schedule B. [Table omitted.]

It will be noted that the book value, depreciated, shown by respondent is $257,761. The engineers have shown for this item $261,380. The company shows intangible value of $21,786 and the engineers $27,830. The engineers have shown a requirement for working capital of $10,314. This item is not segregated on the company's report.

The following table reflects the operating results of the company for the years 1934 and 1935, and 1936, and an estimate for the year 1937, compiled from data filed with the Commission. See Schedule C. [Table omitted.]

Inadequacy of funds available for this investigation under the present law precluded the employment of auditors by which we might have determined the propriety of including within the operating expenses all of the items disclosed by the company's reports. It is regrettable that this condition prevailed and emphasizes the necessity as presented to the legislature by this Commission for direct appropriations which would enable us to more completely control and direct investigations of this character.

The public interest demands that the most searching inquiry be made concerning every detail of operations but this cannot be accomplished without adequate funds.

As glaring examples of this condition, we may cite the rapidly increasing expenditures assigned to new business, mounting management fees, and heavy expenses incident to auditing. Without sufficient funds, we cannot determine the integrity of these items.

[2] Comparison of the rates for similar services in other communities of the state where conditions are not substantially different, may be used as a measure by which to test reasonable rates. Using this yardstick, we have compiled the following tables to show the rates charged and income derived by the respondent in comparison with the rates for a like service at Bisbee. See Schedule D:

SCHEDULE D

Residential Consumers' Comparative Bills

Number of Consumers	Kw. Hr. Consumption	Respondents Objective Rate	Bisbee Rate	Revenue from Respondents Rate	Revenue from Bisbee Rate	Kw. Hr.
177	11–20	1.56	*2.00	276.12	354.00	17.70
127	21–30	2.36	*2.00	299.72	254.00	58.30
70	51–60	4.16	3.83	291.20	268.10	38.50
65	91–100	5.96	5.48	387.40	356.20	61.75
11	141–150	7.96	6.98	87.56	76.78	15.95
7	191–200	9.51	8.48	66.57	59.36	13.65
4	241–250	11.01	9.73	44.04	38.92	9.80
1	541–550	20.01	15.73	20.01	15.73	5.45

*Assumed minimum.

Rate Schedule—Bisbee

7½¢ per kw. hr. for first 30 kw. hr.
6¢ " " " " next 40 " "
3¢ " " " " " 150 " "
2¢ " " " in excess of above amounts.

Safford Objective Rate

First	8	kw. hr.	or	less	.....	$1.00
Next	27	" "	per	kw. hr.	.....	.08
"	40	" "	"	" "	.....	.05
"	75	" "	"	" "	.....	.04
All over	150	" "	"	" "	.....	.03

Commercial Consumers

Comparative Bills

Number of Consumers	Kw. Hr. Consumption	Safford Objective Rate	Bisbee Rate	Established Rate
63	0–25	2.70	1.94	2.00
38	26–50	4.20	3.10	3.20
7	101–125	10.10	8.65	8.90
6	226–250	17.60	16.15	16.40
5	351–375	23.80	23.00	22.60
3	476–500	28.80	29.25	27.60

Rate Schedule—Bisbee

7½¢ per kw. hr. for first 100 kw. hr.
6¢ " " " " next 200 " "
5¢ " " " " " 300 " "
4¢ " " " " " 400 " "
3¢ " " " " " 800 " "
2½¢ " " " " " 1,000 " "
2¢ " " " in excess of above amounts.

Safford Objective Rate

First	8	kw. hr.	or	less	.....	$1.00
Next	42	" "	per	kw. hr.	.....	.10
"	50	" "	"	" "	.....	.08
"	200	" "	"	" "	.....	.06
"	700	" "	"	" "	.....	.04
"	1,000	" "	"	" "	.....	.03

The respondent furnished a consumer breakdown of residential and commercial consumers only for October, 1937. Applying this breakdown to the rates now in effect, we find the following results:

Domestic Consumers	Kw. Hr.	Revenue	No. of Consumers
Residential			
base	7,850	713	179
immediate	12,220	1,192	349
objective	51,392	3,033	560
Total for month	71,462	4,938	1,088
Total for year ..	857,544	59,256	

By using the same breakdown and combining the three groups into one and applying the now existing "objective rate," we arrive at the following:

	Kw. Hr.	Revenue	Per Kw. Hr.	No. of Consumers
For the month	73,017	4,625	6.4	1,088
For the year—Total	876,204	55,508	6.4	1,088

By using the same breakdown and combining the three groups into one and applying the rates to be established by this order, results are as follows:

	Kw. Hr.	Revenue	Per Kw. Hr.	No. of Consumers
For the month	73,017	4,329	5.9	1,088
For the year	876,204	51,948	5.9	1,088

Present objective rates applied to each bill of the total commercial consumers, will yield, we find: Per month, $2,982, and per year, $35,789.

Bisbee rates applied to commercial consumers will yield per month $2,843, and per year, $34,120.

Rates to be established applied to commercial consumers will yield per month $2,781 and per year, $33,372.

The respondent submitted schedules showing kilowatt-hour consumption and revenues as follows: [Table omitted.]

From data furnished by the respondent we find the rates to be established will yield: [Table omitted.]

[3] The record appears to indicate that a depreciation reserve of about 4 per cent has been set up by the company. In our judgment this amount is excessive and we are of the opinion and find that for the future a depreciation reserve of 2½ per cent will be adequate and that figure is hereby established.

[4] We are of the opinion and find that the rates which we shall hereinafter prescribe for the future are and will be just and reasonable and that they will earn a return of 6 per cent upon the investment. If our conclusion with reference to the amount of the rate should be found erroneous, the company may bring that fact to our notice and for that purpose the record will be held open until December 31, 1937.

It is hereby *Ordered:* That effective on or before May 1, 1937, the respondent shall establish and make effective the following schedule of rates. See Schedule E.

SCHEDULE E

RATE SCHEDULES

General Residential Service

Rate:

7¾¢ per kw. hr. for first 30 kw. hr. per month, per consumer
6¢ per kw. hr. for next 40 kw. hr. per month, per consumer
3¢ per kw. hr. for next 150 kw. hr. per month, per consumer
2¢ per kw. hr. in excess of above stated amounts

General Commercial Service

Rate:

8¢ per kw. hr. for first 100 kw. hr. per month, per consumer
6¢ per kw. hr. for next 200 kw. hr. per month, per consumer
4¢ per kw. hr. for next 700 kw. hr. per month, per consumer
3¢ per kw. hr. for next 800 kw. hr. per month, per consumer
2½¢ per kw. hr. for next 1,000 kw. hr. per month, per consumer
2¢ per kw. hr. in excess

Existing rates which have been approved by the Commission not in conflict with the above schedules shall remain in effect. Service rules and regulations provided for in tariffs which have heretofore been approved by the Commission will be omitted from this order. Reasonable terms and conditions applicable to each service and availability of service shall be filed by the respondent.

Re White Mountain Power Company et al.

[D-F1792, Order No. 3271.]

Consolidation, merger, and sale, § 30 — Objections — Hindrance to public acquisition of property.

1. Consolidation of underlying utility companies into a single company, where all the companies are under common ownership, should not be disapproved on the ground that this would be detrimental to possible public acquisition of property in a portion of the territory, where no action for acquisition is pending and it is not clear that the consolidation if effected would complicate the procedure; even if this were not the case, it is questionable whether refusal to authorize a consolidation deemed to be in the interest of the public throughout the territory, solely to protect a portion thereof in the uncertain contingency of possible subsequent public purchase, would constitute a proper discharge of the Commission's obligation to the public generally, p. 326.

Consolidation, merger, and sale, § 6 — Duty of Commission.

2. The obligation of the Commission in passing upon an application for authority to consolidate public utilities is to the entire public throughout the territory rather than to the special interests of one community in opposition to those of another, p. 327.

Consolidation, merger, and sale, § 42 — Terms and conditions — Separate divisions.

3. The Commission, in approving a consolidation of affiliated public utilities, held that the peculiar characteristics of certain of the operating properties and areas served made it desirable that for accounting, operating, and rate purposes separate divisions be established and maintained, p. 328.

Consolidation, merger, and sale, § 23 — Advantages — Economies of operation.

4. A reduction in Federal income tax payments because of the substitution of interest-bearing and noninterest-bearing securities, together with economies resulting from simplification of accounting and reporting to governmental agencies, and the strengthening of organization as a result of a consolidation of affiliated utilities, directly benefits the utility and in the last analysis must react to the advantage of its patrons; and such consolidation, if effected upon proper and reasonable terms, is for the public good, p. 328.

Consolidation, merger, and sale, § 21 — Advantages — Rate reductions.

5. Rate reduction in anticipation of savings expected from a consolidation of affiliated utilities will be in the public interest and constitute a ground for approving the consolidation, p. 329.

Rates, § 171 — Uniformity — Consolidated utilities.

6. The uniform application of domestic electric rates in territories served by companies consolidated into a single corporation results in a more equitable adjustment when there are no differences in the conditions under which service is rendered which involve differentials of cost justifying discrepancies among the applicable rates, p. 330.

Discrimination, § 39 — Classes of customers — Electric utilities.

7. The fact that there will be some increases in the bills of a limited number of electric customers, or roughly 3 per cent of the entire domestic customer class, does not constitute a sufficient reason for permitting inequities of domestic rates to continue, particularly in view of substantial savings to be effected under a proposed rate revision by the vast preponderance of the customers affected, p. 330.

Rates, § 265 — Demand element.

8. The demand element should be recognized in the distribution of costs, and thus of charges, among electric customers and customer groups, inasmuch as costs of service are affected directly by the necessity of providing facilities sufficient to carry the maximum demands made upon the system and its component parts, p. 330.

Rates, § 276 — Block rates — Objections.

9. Simple block rates inadequately reflecting demand costs are unsatisfactory for commercial electric customers although they may be satisfactory for domestic service, where use is likely to be much more highly diversified, p. 330.

Consolidation, merger, and sale, § 24.1 — Wholly owned subsidiaries.

10. A consolidation or merger of wholly owned subsidiaries into a single operating utility, with no change in the basic ownership, is in the public interest if effected upon proper terms, when the consolidation permits substantial economies and provides for desirable downward rate revisions, p. 331.

Consolidation, merger, and sale, § 42 — Terms and conditions — Dissolution of underlying companies.

11. Upon the consolidation or merger of wholly owned subsidiary operating utilities into a newly organized corporation, the underlying companies should be dissolved after the satisfaction of all tax and other contingent liabilities, and the order approving the consolidation should so provide, p. 334.

Consolidation, merger, and sale, § 52 — Terms and conditions — Purchase price.

12. A consolidation or merger of wholly owned subsidiary operating utilities should not be accomplished by sale of their assets to the consolidating corporation at a purchase price in excess of the book values of the underlying companies, p. 334.

Consolidation, merger, and sale, § 52 — Necessity of fixing purchase price — Related companies — Issuance of no-par value stock.

13. The Commission, in approving a transfer of properties of wholly owned subsidiary operating utilities to a single corporation (not really a consolidation in view of the intercorporate relations), need not find specific values as a basis for approval or disapproval of the proposed "purchase price" when stock is to be issued without par value, so that the proposed capitalization is, in a sense, incapable of expression in terms of a total nominal principal amount, p. 334.

Intercorporate relations, § 13 — Transactions between affiliates.

14. Transactions between public utilities which are affiliates are not necessarily equivalent to bargains arrived at at arm's length, but must be scrutinized with especial care if the public interest is to be protected adequately and if the regulatory process is to function effectively, p. 334.

Consolidation, merger, and sale, § 52 — Terms and conditions — Consideration for property transfers — Affiliated companies.

15. A consolidation of wholly owned subsidiary operating utilities was held to be for the public good only if the properties were set up on the books of the new company at the values at which they appeared on the books of the underlying companies as of the effective date of transfer, p. 334.

Security issues, § 99 — Amount of bonds — Nature of income bonds.

16. Income bonds representing no lien upon the property and with no foreclosure rights in the event of default of interest, which are to be paid from net income only if earned, may be considered as essentially of the nature of preferred stock, in considering the ratio of bonded indebtedness to aggregate net book value and probable present value of property, p. 336.

Security issues, § 106 — Interest rates — Mortgage bonds and income bonds.

17. Issuance of first mortgage bonds bearing interest at 5 per cent and income bonds bearing interest at 6 per cent was approved in the consolidation of public utilities under common ownership, where the issues would be small and the market restricted and there would be no expense of a public offering, p. 336.

Security issues, § 97 — No-par value stock — Number of shares.

18. It is of no great consequence how many no-par value shares within reason are outstanding upon the consolidation of affiliated utility corporations where the Commission refuses to permit the establishment of an inflated initial value per share, but securities are exchanged for the property, p. 337.

[March 22, 1937.]

PETITION *for authority to purchase and acquire utility properties of various companies and to issue securities; petition granted subject to specified conditions.*

APPEARANCES: Robert Upton, for the petitioners; Mayland H. Morse, for the towns of Campton, Thornton, Woodstock, Holderness, Plymouth, Rumney, Wentworth, and Warren; Arthur Greene, for the precincts of Bartlett and Conway; Bertram Blaisdell, for the town of Meredith; Perley Lee, for the towns of Alton, Gilmanton, and New Durham; Norman T. Wilcox, for the town of Tuftonboro.

SMITH, Chairman: By a petition filed May 29, 1936, authority was sought for what in effect would amount to the consolidation or merger of six wholly owned subsidiary operating utilities, hereinafter called the Underlying Companies, into the White Mountain Power Company, a newly organized New Hampshire corporation, which thereupon would become an electrical public utility operating under the jurisdiction of this Commission. The six Underlying Companies, together with their capitalization, the gross and net book value of their fixed assets, their net worth, and the territories which they serve, are shown in Table I below: [Table omitted.]

Nature of This Proceeding

At present all of the common stock

of the six Underlying Companies—except 25 shares of the common stock of the East Andover Light & Power Company held by the General Water, Gas and Electric Company of Philadelphia, Pennsylvania—is owned by the Central New Hampshire Power Company, formerly known as the White Mountain Power Company. All of the stock of the Central New Hampshire Power Company, in turn, is owned by the aforesaid General Water, Gas and Electric Company. The entire outstanding capitalization of the newly formed White Mountain Power Company, hereinafter termed the Company, now consists of 10 shares of non-par common stock, which were issued for cash at $50 per share to the assistant treasurer of the Central New Hampshire Power Company, as trustee. From the foregoing it is apparent that all of these companies are affiliates within the definition of P. L. Chap. 258A, § 1. The duty and authority of this Commission in the premises is therefore broadened to include the examination and investigation of the terms of any transaction such as this, and the issuance of "such reasonable order relating thereto as the public good requires," P. L. Chap. 258A, §§ 4–6.

Under the original petition, authority was sought, pursuant to P. L. Chap. 240, § 28, for the purchase and transfer of the franchises, works, and systems of the Underlying Companies by and to the Company, together with approval, in compliance with P. L. Chap. 240, § 26, of the permanent discontinuance of their utility operations. At the same time the Company asked for authority, under P. L. Chap. 240, § 21, to engage in business as an electrical public utility in the territories served by the Underlying Companies, and for approval, pursuant to P. L. Chap. 241, of the issuance of securities in payment for the properties so acquired. For this purpose it sought to issue $400,000 principal amount of 25-year 6 per cent first mortgage bonds, $200,000 principal amount of 20-year 7 per cent second mortgage bonds—on which, however, the interest, although cumulative, would be payable from net income only if earned—and 5,990 shares of non-par common stock. It was proposed that these securities be distributed among the acquired companies "in such proportion as their respective net values are to the total value." In addition, the Company proposed to assume the indebtedness of the Underlying Companies as of the effective date of the transfer. The indebtedness of the Underlying Companies to one another and to and from the Central New Hampshire Power Company, which would be canceled out in the course of this transaction, is shown in Table II below, together with the balances due the parent General Water, Gas and Electric Company, which would remain to be assumed by the Company. [Table omitted.]

During the course of this proceeding—upon which hearings were held at Meredith on August 4, September 1 and 2, and October 16, 1936—a substitute petition was filed, on October 6, 1936. This petition, although seeking the same authority as the first for the transfers of property and operating rights necessary to effect the consolidation of the Underlying Companies, amended the original proposal in the following particulars:

First, the Company asked for approval of the issuance of $400,000 principal amount of 25-year 5 per cent first mortgage bonds, and $200,000 principal amount of 20-year 6 per cent income bonds, as well as 5,990 shares of non-par common stock, in payment for the properties to be acquired, these securities to be issued and distributed proportionally to the Underlying Companies as originally proposed. Thus, recognition was given to the objections which had been raised to the 6 per cent and 7 per cent interest rates respectively proposed on the first and second mortgage bond issues, while the second mortgage security and designation, a somewhat misleading feature of the initial proposition, was eliminated in the case of the $200,000 of income bonds.

Second, any ambiguity as to the indebtedness of the Underlying Companies to be assumed by the Company was resolved by the proposal that the Company assume, as of the effective date of the transfer, all of their current liabilities and outstanding indebtedness, "including customers' deposits, accrued taxes, other accrued liabilities, and notes and accounts payable (other than intercompany indebtedness which is to be canceled and indebtedness to the Central New Hampshire Power Company). . . ." Allowing for the assumption of these debts, the combined net worth of the Underlying Companies, or total net assets to be acquired by the Company, stood, as of December 31, 1936, at $631,184.94, the details being shown in Table III, below:

TABLE III

TOTAL NET ASSETS TO BE ACQUIRED AS OF DECEMBER 31, 1936

Fixed Capital—Electric	$967,855.26	
Less: Depreciation Reserve	354,171.81	
Net Fixed Capital—Electric	$613,683.45	
Non-operating Property	1,420.52	
Total Fixed Assets		$615,103.97
Cash	$6,266.65	
Materials and Supplies, less reserve ($121.16)	27,317.82	
Accounts Receivable, less Uncollectible Accounts Reserve ($4,517.14)	48,419.99	
Notes Receivable	1,312.63	
Interest Receivable	31.38	
Prepayments	3,817.60	
Total Current Assets		87,166.07
White Mountain Power Company Organization Expense		5,695.74
Total Assets to Be Acquired		$707,965.78
Accounts Payable	$14,930.81	
Notes Payable (to General Water, Gas & Electric Company)	43,500.00	
Customers' Deposits	6,980.37	
Total Current Liabilities	$65,411.18	
Miscellaneous Accrued Liabilities	11,369.66	
Total Liabilities to Be Assumed		76,780.84
Net Assets to Be Acquired		$631,184.94

NOTE: These figures are subject to revision, with the consent of the Commission, in accordance with the provisions of the "Uniform Classification of Accounts for Electric Utilities," effective January 1, 1935, upon completion of Fixed Capital studies now in progress.

Third, the Company no longer seeks merely to acquire the net assets of the Underlying Companies by issuing its securities in exchange. It refers to the transaction as a purchase and sale, which is now to be negotiated at a specified price, and accordingly proposes "to pay to said Companies the sum of $899,500, which sum shall be paid by the issue to" them of the securities enumerated above. The true significance of this amendment of the proposal may perhaps best be shown through a comparison of the effects of the original and present proposals in relation to the net book values of the assets to be acquired, shown in Table III.

Against these total net asset values of $631,184.94, both the original and the amended proposals call for the issuance of a total of $600,000 of bonds, leaving on the books a net stockholders' equity of but $31,184.94, against which it is proposed to issue 5,990 shares of non-par common stock. Allowing for the 10 shares now outstanding, which were issued for cash at $50 per share, the resulting net book value of the 6,000 shares of non-par common stock after consolidation would become approximately $5.28 per share. If, on the other hand, the Company were to pay for the net assets the proposed definite price of $899,500—and were to be permitted to record this purchase price on its books and to issue securities against the corresponding opening entries—the net stockholders' equity would appear on the books as $300,000 indicating an apparent value for the 6,000 shares of non-par common stock of $50 per share.

From the foregoing it appears that, apart from the specific findings required under the particular statutory provisions involved, this proceeding presents for determination two major issues: first, other things being equal, would the proposed consolidation as such be for the public good; and, second, would the terms of transfer and the capitalization proposed be in the public interest. These questions will be considered in turn in this report.

Consolidation for the Public Good

We are convinced upon the record that the proposed consolidation, as such, will be for the public good. Representatives of several of the towns involved voiced certain reservations to this general proposition which we shall discuss briefly before proceeding to consideration of the affirmative basis for our conclusion.

General objections.

The general objections, or qualifications, all involve the fear that certain advantages believed now to exist because particular communities are served by relatively small and nominally distinct operating units would disappear if the individual identities of the Underlying Companies were lost through merger. More particularly, this involves concern over the possible effects of consolidation: first, in perhaps complicating the acquisition of all or a part of the properties involved for the purpose of establishing and operating municipal lighting systems; and second, in tending toward uniformity of rates throughout the territory to be served by the Company.

[1] Concern over the possible effect of the proposed consolidation upon public acquisition of the property

appears to be limited to a portion of the territory which is now served by the Goodrich Falls Electric Company, where in the past some steps have been taken toward that end. We know of no such action now pending, nor is it clear that the consolidation, if effected, would complicate such procedure.

Under the provisions of Laws of 1935, Chap. 153, it is possible for cities, towns, or village districts to establish and operate municipal lighting systems after taking the steps specified by the statute. Existing utility plants may be acquired through either voluntary sale or condemnation. In the latter event, it is provided that the price to be paid, and the severance damages if any, shall be determined in the first instance by this Commission, with rights of appeal to the superior court, *ibid.*, § 8. Since the Underlying Companies are now but nominally independent affiliates, and since it is of record that there is no present intention of interconnecting the generating plant of the Goodrich Falls Electric Company with the rest of the system, we are unable to see how the consolidation, as such, could adversely affect the interests of the communities served by that property should they later wish to acquire and operate it. Even if this were not the case, it is questionable whether refusal to authorize a consolidation deemed to be in the interest of the public throughout the territory, solely to protect a portion thereof in the uncertain contingency of possible subsequent public purchase, would constitute a proper discharge of our obligation to the public generally.

Some of the six Underlying Companies are stronger financially than others and the characteristics of the territories served and the sizes and regularity of their customers' loads vary widely. These differences result directly in variations in costs of service, which have found some measure of expression in the differing rate levels which have been established. Certain of the communities now enjoying relatively favorable rates fear that consolidation, if leading to an averaging of conditions and costs, might result ultimately in rate increases, or at least might preclude rate reductions which they might otherwise enjoy. At the same time, and for reasons which are not wholly clear, somewhat similar objections have come from certain of the communities now served under relatively less favorable rates.

[2] Reluctance on the part of individual communities to relinquish real or fancied comparative advantages is easy to understand. On the other hand, it is questionable whether the differentials now existing among the rate levels of the several Underlying Companies accurately reflect the variations of their costs. Furthermore, because of possible economies discussed below, we are inclined to the belief that consolidations such as this are likely to produce the unusual result of a whole which is greater than the sum of its parts. It is not unlikely, therefore, that eventually the costs and rate levels prevailing over the whole area to be served by the Company will be lower than those possible for any one of the properties operating alone. Our obligation is to the entire public throughout the territory, rather than to the special interests of one community in opposition to those of another.

[3] While it may develop that in the long run rates throughout the area involved should in the public interest become more nearly uniform than heretofore, at present it seems highly desirable that, for accounting, operating, and rate purposes, separate divisions be maintained along reasonable and logical lines. To this the Company raises no objection and originally suggested the following grouping:

Proposed Divisions	Underlying Companies
Meredith Division	Meredith Electric Light Co.
Pemigewasset Division	Pemigewasset Electric Co.
Southern Division	East Andover Light & Power Co.
	Hill Light & Power Co.
	Alton Electric Light & Power Co.
Northern Division	Goodrich Falls Electric Co.

The staff of the Commision has proposed the following divisional basis as more apropriate and better suited to characteristics of the territories served:

Proposed Divisions	Underlying Companies
Central	Meredith Electric Light Co.
	Pemigewasset Electric Co.
Andover	East Andover Light & Power Co.
	Hill Light & Power Co.
Alton	Alton Electric Light & Power Co.
Conway	Goodrich Falls Electric Co.

This suggestion is acceptable to the Company and we believe it will go far toward meeting many of the general objections raised by certain of the communities affected. Accordingly, our finding, which approves the consolidation if effected upon terms hereinafter found proper, is conditioned upon the establishment and maintenance of such divisions. Our order herewith will so provide.

Economies of operation.

[4] Possible economies are stated by the petitioner as a leading reason for the proposed consolidation. Among the anticipated savings a reduction of Federal income tax payments, because of the substitution of interest-bearing for noninterest-bearing securities, is the principal item of immediate importance. On the basis of present rates of tax, the saving on this account alone would have been over $4,000 on the 1935 income. In addition it is expected that savings can be effected through the avoidance of bookkeeping now necessary in connection with consolidated purchasing—which is done for the group of six Underlying Companies by the Meredith Electric Light Company, with subsequent transfers, charges, billings, and payments within the group—and the general simplification of accounting and reporting to governmental agencies. Economies of this character are estimated at about $2,500 annually.

Other expected advantages, while no less real, are less susceptible of exact prediction or pecuniary expression. These include a number of benefits usually resulting from the consolidation and strengthening of an organization, such as efficiency in financing because of the pooling of resources, greater activity in the promotion of new business, and interchanges of labor to increase the efficiency of operation. In the opinion of the Commission, experience in the operation of the properties of the Company as a single unit may disclose additional opportunities to effect savings, particularly through electrical interconnection and further consolidation and diversification of its purchases of energy from other utilities. We shall ex-

pect the thorough exploration of all such possibilities as an indication of reasonable and economical management.

In the first instance any such economies directly benefit the utility in last analysis, however, they must react to the advantage of its patrons. The strengthening of the utility enables it better to meet the requirements of adequate and reasonable service to the public, while savings in its costs of operation permit corresponding reductions of rates. It is for these reasons that we conclude and find that the consolidation as such, if effected upon proper and reasonable terms and subject to certain other conditions discussed below, will be for the public good.

Revision of rates.

[5] The Company has agreed, after conferences with the Commission, that, upon effecting the consolidation and in anticipation of the savings expected, it will file rates substantially lower than those now charged by the Underlying Companies. This, it is submitted, will be in the public interest.

During the last four years virtually the entire rate structures of all of the Underlying Companies except the Goodrich Falls Electric Company have been revised. In the main, these revisions have acomplished the change of the domestic rates from the so-called 2-meter basis to a single block rate for all lighting and appliance consumption, and, at the same time, have effected substantial reductions of the general levels of these charges. Re Pemigewasset Electric Co. (1934) 16 N. H. P. S. C. R. 23, 4 P.U.R.(N.S.) 405; (1935) 17 N. H. P. S. C. R. 75; 17 N. H. P. S. C. R. 172; Re Hill Light & P. Co. (1934) 16 N. H. P. S. C. R. 113; (1935) 17 N. H. P. S. C. R. 209; Re Alton Electric Light & P. Co. (1934) 16 N. H. P. S. C. R. 132; Re East Andover Light & P. Co. (1934) 16 N. H. P. S. C. R. 177, 8 P.U.R.(N.S.) 212.[1] Despite these reductions, which have entailed net savings to the public of about $16,800 annually, the rate levels of these properties have remained relatively high in comparison with the rates effective elsewhere in the state and have been a source of continued complaint. Many of the patrons have been dissatisfied, believing that the rates were still unjustifiably high, and the reductions have not always promoted corresponding increases of sales. In our opinion revenues have been derived from sales of too few kilowatt hours and it is highly desirable that further reductions of rates, accompanied by vigorous efforts to encourage use, be made as rapidly as circumstances permit.

The reductions now offered by the Company would represent, on the basis of past consumption, a total net saving to its patrons of over $19,200 annually. Of this sum, nearly $11,800 would become available immediately in the form of reductions of the annual domestic rates, as set forth more fully below, while the Company has agreed to make further reductions of its rates for other classes of service to total approximately $7,500 annually. It is not desirable that the

[1] Similar changes in the rates of the Meredith Electric Light Company became effective with billings after April 30, 1933, without, however, the issuance of any report or order by this Commission.

rates for these other classes be revised until more complete and accurate data as to customer demands become available. Such information is now being secured and it is understood that, as in the case of the domestic rates now proposed, the Company will coöperate with the rate engineer for the Commission in studies designed to show how the revisions and reductions may most properly be applied.

The annual net savings resulting from the reductions of domestic rates which are now proposed will be distributed among the customers served by the divisions described above as follows:

Central	$6,075
Andover	1,732
Alton	1,554
Conway	2,407
Total	$11,768

The specific nature and effects of the changes proposed in the domestic rates of each of the divisions will next be discussed.

[Discussion and analysis of rate situations in each division omitted.]

[6, 7] We have not found differences in the conditions under which service is rendered which involve differentials of cost justifying such discrepancies among the applicable rates. We are, therefore, strongly of the opinion that a more equitable adjustment will result from the proposed uniform application of the suggested all-purpose domestic rate. Increases to 19 2-meter customers now served under Schedule A combined with either Schedule F or Schedule G will aggregate $138.33 annually, or an average of only about 60 cents per customer per month. Reductions to the 2-meter group will save 44 customers $604.36 annually, or an average of approximately $1.15 monthly per customer. Thus, despite the increases of the bills of a few annual 2-meter customers, the group as a whole will enjoy a yearly net saving of $466.03, while the savings of the five seasonal 2-meter customers, totaling $68.71, brings the net reduction of the 2-meter customers to $534.74 annually. Adding the reductions to the one-meter customers—the 27 short-term customers saving $487.93 and the 522 annual customers saving $1,384.21 annually—the aggregate annual reduction becomes $2,545.21 gross, or $2,406.88 net. The fact that there will be some increases in the bills of 19 customers, or roughtly 3 per cent of the entire domestic customer class, does not in our opinion constitute a sufficient reason for permitting the present inequities of the Goodrich domestic rates to continue, particularly in view of the substantial savings to be effected under the proposed rate revision by the vast preponderance of the customers affected.

Commercial Rates

[8, 9] The company has also agreed to make further reductions of its rates for classes of service other than domestic to aggregate an annual net saving of approximately $7,500. The commercial and power rates of the Underlying Companies are now for the most part of the simple block type. Although in certain instances maximum limits of loading have been established and monthly minimum charges have been scaled according to load or motor horsepower ratings, there has been little recognition in the

rates of the influence of customer demand upon costs of service.

For customers having small and diversified demands the simple block rate may not result in serious inequalities, but where maximum demands vary widely among consumers the application of such a rate may be highly inequitable. This is particularly true of commercial lighting consumption where the maximum demands are likely to occur simultaneously and during peak periods. Inasmuch as costs of service are affected directly by the necessity of providing facilities sufficient to carry the maximum demands made upon the system and its component parts the demand element should be recognized in the distribution of costs, and thus of charges, among customers and customer groups. Otherwise a relatively small number of customers imposing high individual demands may contribute less than their fair share of the total costs of service, in a sense profiting at the expense of other customers who may be charged disproportionately high rates. For this reason simple block rates inadequately reflecting demand costs are unsatisfactory, except for domestic service where use is likely to be much more highly diversified. A closely related objection is the failure of such types of rates to recognize the fact that the higher the percentage of time use of demand, the lower the unit cost of service. In other words, the rate should reward high, and penalize low, load factor by automatically providing for appropriate decreases or increases of the unit rate.

For these reasons it is anticipated that revisions of the remaining rates to effect net reductions of $7,500 will provide for more adequate recognition of demand than has been the case heretofore. At present there is not available sufficiently complete and accurate data as to individual customers demands to permit the careful study and thorough consideration which will be necessary if proper commercial or general and power rates are to be designed. The collection of the necessary information is now in progress, and we shall expect that it will be utilized in an effort to effect the prompt and reasonable revision of these rates. Meanwhile it will be necessary for the company to adopt by tariff supplement, and to operate under, the applicable commercial and power rates of the Underlying Companies.

For the reasons set forth we believe that the rate revisions—affording immediate net savings to the public of $11,768 annually, with the promise of approximately $7,500 more in the early future—which have been proposed in connection with the consolidation will be for the public good and should be effected as promptly as possible. Therefore, our finding that the consolidation, if effected upon terms hereinafter found reasonable and proper, will be in the public interest is subject to the further condition that the proposed new domestic rates described above are filed by the Company within ten days of the date of actual transfer to become effective with the next regular billings thereafter, and our order herein will therefore permit them to become thus effective upon less than the statutory period of notice.

Terms of Transfer and Capitalization

[10] As pointed out in the opening

section of this report, what is proposed is fundamentally a consolidation or merger of wholly owned subsidiaries into a single operating utility with no change in the basic ownership. We are convinced that such a consolidation, permitting substantial economies and providing for desirable downward rate revisions, will be in the public interest if effected upon proper terms. It is, therefore, to the terms and conditions of the consolidation and the issuance and exchange of securities whereby it is proposed that it be effected that we now turn our attention.

Fears have been voiced by representatives of certain of the towns concerned lest the utilities serving them be burdened with an undue load of interest-bearing obligations and lest an unduly high valuation be placed upon the properties at this time which might later react against the public. We believe that adequate protection of the public interest as involved in both of these considerations is afforded by our determination of these issues as discussed below.

Terms of transfer.

It will be recalled that under both the original and amended petitions the proposed transaction is called a purchase and sale. The only difference between the petitions in that respect is that the second, unlike the first, names a stipulated price, $899,500, to be paid in the securities of the Company, which under both petitions it is proposed to distribute ratably among the Underlying Companies according to their respective net values.

Considerable testimony was offered by expert witnesses for the petitioners in support of the proposed price of $899,500. The assistant treasurer of the Underlying Companies explained why the Fixed Capital Accounts now appearing in their books in his opinion understate the actual costs of the properties, although to just what extent is not certain. It was alleged also that the Depreciation Reserve Accounts are unduly high. Two separate engineering appraisals were submitted. That of O'Hare-Lewis estimates for the combined operating properties of the Underlying Companies as of June 30, 1936, a Reproduction Cost New of $1,233,575.32 and a Reproduction Cost Less Depreciation of $1,092,395.31, while that of Ford, Bacon and Davis shows a total Reproduction Cost New of $1,265,548 and a Reproduction Cost Less Depreciation of $1,025,383.[2] An appraisal made by the chief engineer for the Commission likewise indicates that the present value of the property is in excess of its book value and of the bonds which it is now proposed to issue, his figures showing Reproduction Cost New as $1,012,571.77 and Reproduction Cost Less Depreciation as $743,749.84.[3]

On the basis of these estimates the petitioners ask that we approve and authorize the transfer as a purchase and sale at the proposed price of $899,500. In a request for findings and

[2] Based on inventories as of the following dates: December 31, 1934—Meredith Electric Light Company; June 30, 1935—Pemigewasset Electric Company; August 31, 1935—Alton Electric Light & Power Company; October 31, 1935—East Andover Light & Power Company, Goodrich Falls Electric Company, Hill Light & Power Company.

Net additions to the valuation date were added at actual cost as shown on the books.

[3] Based upon inventories as of the dates and showing the same physical units and quantities as those referred to in the preceding footnote, with net additions to the valuation date likewise taken at book cost.

rulings filed November 30, 1936, they ask for a finding that "the present fair value of the assets of the several operating companies less liabilities to be assumed by the purchaser exceeds the proposed purchase price of $899,500" or, if that request is denied, that the Commission find the present fair value of such net assets, and in such event to find and rule upon a number of specific questions relating to the determination of present fair value. On brief, Grafton County Electric Light & P. Co. v. State (1915) 77 N. H. 490, 93 Atl. 1028; 77 N. H. 539, P.U.R.1915C, 1064, 94 Atl. 193; 78 N. H. 330, P.U.R.1917E, 345, 100 Atl. 668, is cited as authority, not only for certain contentions regarding elements of value, but also for the general proposition that the Underlying Companies "are entitled to sell their assets for their present fair value" and that "the purchasing [Company is entitled] to capitalize all assets however acquired. . . ."

Before considering these contentions further let us see what the situation would be if nothing more were proposed than a transfer of properties in exchange for securities. Leaving aside for the time being all question of the propriety of issuing and exchanging the proposed $600,000 of bonds, the remaining consideration is 5,990 shares of non-par common stock, pieces of paper having value equivalent only to their proportionate share in the distribution of such dividends as may be declared from net earnings and in the remaining net assets in the event of liquidation or sale of the property, and representing voting control of management and operation. Since, under the "Uniform System of Accounts for Electrical Utilities" now effective in this state amounts chargeable to Fixed Capital Accounts in cases like this shall be ". . . the book value of operating property acquired from a predecessor public utility" (*Ibid.*, p. 28), the operating property to be transferred would normally go onto the books of the Company at the amounts at which it had previously been carried on the books of the Underlying Companies. As shown in Table I above, on present book values this would produce a net worth of the property to be acquired as of December 31, 1936, of $631,184.94 and would now establish an initial value of approximately $5.28 per share on the non-par common stock. In the event that pending studies of the Fixed Capital disclose discrepancies between book costs as previously carried and actual costs of such property to the accounting company, proposed journal entries to adjust such differences may be submitted to the Commission for approval (*Ibid.*, p. 28). Demonstrable errors in depreciation accounting may likewise be corrected. This would seem to afford ample protection to the Company and an opportunity for the correction, with the consent of the Commission, of any mistakes in past accounting for property costs or depreciation, of the character suggested in testimony by the assistant treasurer of the Underlying Companies, which may, after proper study, be found actually to have occurred. Should any such corrections be approved we shall raise no objection to their reflection in the opening entries upon the books of the Company as of the effective date of the consolidation.

If, on the other hand, the transaction were to be regarded strictly as a purchase and sale at an established price exceeding the previous book values, the individual Fixed Capital Accounts would still be set up at the former book figures, with the difference in price—under the terms proposed in this case $268,315.06—being carried in the Fixed Capital Adjustment Account (Account No. 304, *ibid.*, pp. 30, 31, and 36) as a presumably capitalizable expenditure. This procedure in the instant case would, as remarked earlier in this report, establish an initial value for the non-par common stock of $50 per share.

[11–15] What is the essence of this proposed transaction? Although on its face it may appear as a purchase and sale, in fact it is primarily an exchange or substitution of securities and corporate title to property, with no real change in ownership. The owner of the operating properties is the General Water, Gas and Electric Company which, directly or indirectly through the Central New Hampshire Power Company, owns all the securities of the Underlying Companies. Under the plan proposed these wholly owned subsidiaries are to sell their properties to the Company which, in turn, is also controlled by the same General Water, Gas and Electric Company through the assistant treasurer of the Central New Hampshire Power Company, who holds all of its presently outstanding stock as trustee. In return for their property the Underlying Companies are to receive the securities which the Company expects to issue. When the Underlying Companies are dissolved, as is contemplated—and since their continued existence would seem to serve no useful purpose, we so strongly believe they should be dissolved upon the satisfaction of all tax and other contingent liabilities that our order herewith will so require as a condition to the consolidation—the securities of the Company now held by them would presumably be transferred to their owners, ultimately the same General Water, Gas and Electric Company which now owns, directly or indirectly, all of the securities issued against the operating properties. Disregarding the fictions of separate corporate identities and of ostensible purchase and sale, it is plain that no real change of ownership would have resulted from the manufacture and circulation of these securities, and none could occur unless and until the General Water, Gas and Electric Company, or its subsidiaries, should dispose of some of the newly issued securities of the Company.

Looking again for the time being only to the so-called non-par common stock, the net result of the transaction if carried out upon the lines of the proposed purchase and sale would be not an actual alteration of ownership, as would be expected in the case of a bargain reached at arm's length, but a mere write-up of initial book value per share. It is scarcely conceivable that we would be asked to authorize such a procedure in the case of a going utility merely because of an alleged appreciation of its assets and without any change of ownership. Yet these petitioners seek just such authority in this instance under the guise of a purchase and sale of property between a buyer and a seller who are in reality one. If such a transaction were to be approved it is difficult

to see how we could withhold authorization whenever a utility, realizing that construction costs and values were rising, might choose to organize an affiliate to which it might convey its property at a sufficiently high price to claim a right to issue securities for which there might otherwise be no basis and, as here, without any additional investment whatever. Despite the fact that we are convinced of the desirability of the consolidation as such, we are not persuaded that it would be for the public good if effected upon the terms proposed.

The stock which it is proposed to issue is to be without par value, so that the total proposed capitalization is, in a sense, incapable of expression in terms of a total nominal principal amount. Consequently it is not necessary for us to follow the procedure indicated in Grafton County Electric Light & P. Co. v. State (1915) 77 N. H. 490, 496, 93 Atl. 1028, of denying the petition in its entirety or, in the alternative, of stating the terms upon which we would find the transfer to be in the public interest and the total capitalization which we would therefore approve. Even regardless of the absence of par value in the case of the common stock, we are doubtful that the rules there stated, and now relied upon by the petitioners to establish their contentions regarding the fixation of a purchase price, is at present controlling in a situation of the sort here presented.

Since the decisions in the Grafton County Cases, *supra*, it has come to be recognized generally that transactions between public utilities which are affiliates are not necessarily equivalent to bargains arrived at at arm's length but must be scrutinized with especial care if the public interest is to be protected adequately and if the regulatory process is to function effectively. In a recent opinion which sustained an accounting regulation requiring telephone companies to separate "original cost" from "actual investments in their accounts," American Teleph. & Teleg. Co. v. United States (1936) 299 U. S. 232, 81 L. ed. —, 16 P.U.R.(N.S.) 225, 229, 57 S. Ct. 170, Mr. Justice Cardozo referred to the potential dangers of such situations, and to the need for their careful supervision, as follows:

"Purchases are frequently made by a member or members of a system from affiliates or subsidiaries, and with comparative infrequency from strangers. At times obscurity or confusion has been born of such relations. There is widespread belief that transfers between affiliates or subsidiaries complicate the task of rate making for regulatory Commissions and impede the search for truth. Buyer and seller in such circumstances may not be dealing at arm's length, and the price agreed upon between them may be a poor criterion of value. Dayton Power & Light Co. v. Ohio Pub. Utilities Commission (1934) 292 U. S. 290, 295, 78 L. ed. 1267, 3 P.U.R.(N.S.) 279, 54 S. Ct. 647; Western Distributing Co. v. Kansas Pub. Service Commission, 285 U. S. 119, 76 L. ed. 655, P.U.R.1932B, 236, 52 S. Ct. 283; Smith v. Illinois Bell Teleph. Co. (1930) 282 U. S. 133, 75 L. ed. 255, P.U.R.1931A, 1, 51 S. Ct. 65."

Evidently the legislature, in enacting the recent statute referred to earlier in this report as the Affiliate Act (P. L. Chap. 258-A), was likewise

suspicious of transactions between affiliates and was similarly aware of the necessity, from the standpoint of public good, of examining such transactions carefully. We construe this latter declaration of legislative policy as a declaration that what was characterized in the above-quoted opinion as "a fictitious or paper increment" is not to be tolerated.

We are therefore not convinced that we must as a matter of law regard the transaction merely as an ordinary purchase and sale under the terms proposed, nor are we persuaded that we should disregard the fact that, since the sellers and purchaser are ultimately one, the proposal is really a consolidation. Under this view of the case it becomes unnecessary to find specific values as a basis for approval or disapproval of the proposed "purchase price." Accordingly, we find that the consolidation will be for the public good only if the properties are set up on the books of the Company at the values at which they appear upon the books of the Underlying Companies as of the effective date of transfer, and our order herewith granting the necessary authority for the property transfers, operation by the Company as a public utility, and the discontinuance of public utility operations by the Underlying Companies will contain such a condition. In view of this determination we deem it unnecessary to rule upon the various specific questions raised in the request for findings and rulings filed November 30, 1936.

Issuance and Distribution of Securities

[16] The appraisals referred to above all point to the existence of property having a present value in excess of the $600,000, principal amount, of bonds which it is proposed to issue. While the ratio of the total proposed bonded indebtedness to the aggregate net book value and to the probable present value of the property appears unusually high, it should be borne in mind that under the amended petition the second mortgage security feature has been withdrawn from the $200,000 of bonds for which it was originally suggested. It is now proposed that this $200,000 issue shall consist of income bonds, representing no lien upon the property and with no foreclosure rights in the event of default of interest, which is to be paid from net income only if earned. These income bonds, therefore, may be considered as being essentially of the nature of preferred stock. With but $400,000 of mortgage bonds the financial picture, as to both security and the adequacy of earnings to meet fixed charges, is improved materially.

[17] A similar observation is appropriate with respect to the rates of interest now proposed. Under the original petition the rates suggested, 6 per cent on the first mortgage bonds and 7 per cent on the second mortgage bonds, were unduly high. Under the substitute petition it is proposed that the first mortgage bonds shall bear interest at the rate of 5 per cent and that the payments on the income bonds shall be at the rate of 6 per cent. For the year 1936, the combined net electric operating income of the six Underlying Companies was $65,420.97, their gross income was $67,250.93, and the income balances transferred to Surplus totaled $63,212.25. On this basis it will be seen that the in-

terest requirements on the proposed first mortgage bonds were earned nearly 3½ times, leaving more than $43,000 to meet the charges of $12,000 annually on the income bonds. Grouping the issues, interest was earned nearly twice.

Recent borrowings by public utilities operating in New Hampshire have been on the basis of coupons of 3¾ per cent and 3½ per cent, and the bonds have been sold at prices bringing the average cost of all such money down close to 3½ per cent. Re Public Service Co. (1935) 17 N. H. P. S. C. R. 268; 17 N. H. P. S. C. R. 303; 17 N. H. P. S. C. R. 367, 12 P.U.R. (N.S.) 408; 17 N. H. P. S. C. R. 375; (1936) 18 N. H. P. S. C. R. 6; 18 N. H. P. S. C. R. 48; 18 N. H. P. S. C. R. 90; 18 N. H. P. S. C. R. 167; 18 N. H. P. S. C. R. 246; 18 N. H. P. S. C. R. 282; 18 N. H. P. S. C. R. 284; 18 N. H. P. S. C. R. 419; 18 N. H. P. S. C. R. 641; Re Connecticut River Power Co. (1936) 18 N. H. P. S. C. R. 48; 18 N. H. P. S. C. R. 90; Re Central Vermont Pub. Service Corp. (1936) 18 N. H. P. S. C. R. 411; 18 N. H. P. S. C. R. 466. These rates, however, have been secured through competitive public offerings of large blocks of securities by utilities having well-established credit and whose securities are readily marketable. An expert witness for the petitioners testified that the proposed rates of interest would be reasonable when the issues were as small and the market as restricted as in the instant case. Furthermore, there will be none of the expense of public offering as far as the Company is concerned. In the case of the income bonds, the 6 per cent interest rate, as previously suggested, will be in the nature of a cumulative dividend on preferred stock. A recent issue of the 5 per cent preferred stock of the largest utility operating in this state brought a price to the Company of 97.655, producing a cost of money of 5.12 per cent, Re Public Service Co. (1936) 18 N. H. P. S. C. R. 629. Under the circumstances we think that the coupon rates proposed are not unreasonable.

[18] Since the common stock is to be without par value, and in view of our refusal to permit the establishment of an inflated initial value per share, it is in our judgment of no great consequence how many shares within reason are outstanding. We therefore raise no objection to the proposal to issue at this time 5,990 additional shares, each of which will be entitled to share in the ratio of 1 to 6,000 in the income, net assets, and control of the Company.

It is proposed that all these securities be issued to the Underlying Companies according to the proportion of their respective net values to the total. Inasmuch as values are not found herein, we shall expect that the distribution will be effected ratably according to net worth as shown by the books of the several Underlying Companies as of the effective date of the transfer.

For the foregoing reasons we find that, subject to the conditions as to consolidation hereinbefore set forth, the issuance and distribution of securities by the Company as described above will be consistent with the public good, and will so order.

Summary of Findings

Our conclusions and findings upon

the facts set forth in this report may be summarized briefly as follows:

1. That economies estimated at not less than $6,500 annually will result immediately from the consolidation of the Underlying Companies, with the possibility of further savings in the future, and that such economies will of necessity react to the ultimate benefit of the customers of the Company throughout its entire territory;

2. That, partly in anticipation of the economies to be effected through consolidation, the Company offers immediately revisions of its domestic rates which will result in net savings to its patrons of at least $11,768 annually, with an additional net reduction of its commercial and power rates in the near future in the approximate amount of $7,500 annually, which reductions will be to the advantage of the public generally throughout the territory served;

3. That for the reasons just stated, the consolidation will be for the public good if effected upon proper terms, and therefore that in the public interest the requisite authorizations of transfers, operations, and discontinuance should be given, subject to the conditions herein explained and set forth;

4. That nevertheless the consolidation will not be for the public good if effected as a purchase and sale transaction at the proposed price of $899,500 for the net assets involved, but only if made upon the basis of book values as of the effective date of the transfer, December 31, 1936, subject to proper adjustments as hereinbefore explained and with the consent of this Commission;

5. That the revised and reduced domestic rates referred to above and described more particularly earlier in this report, being of advantage to the public, should be made effective at the earliest possible date, this being a condition of our finding of public good;

6. That, although it is found conditionally that the consolidation will be for the public good, the peculiar characteristics of certain of the operating properties and areas to be served make it now desirable that for accounting, operating, and rate purposes four separate divisions, as described more particularly elsewhere in this report and in the order below, be established and maintained, this being a condition of our finding of public good;

7. That upon consolidation of the Underlying Companies their continued existence, after the satisfaction of all claims against them, will serve no useful purpose, and therefore that they should thereupon be dissolved, this being a condition of our finding of public good;

8. That for purposes of effecting this consolidation it will be consistent with the public good that the company issue, as of the effective date of the transfer, $400,000 principal amount of its first mortgage bonds maturing not more than twenty-five years from the date of issue and bearing interest at the rate of not more than 5 per cent, $200,000 principal amount of its income bonds maturing not more than twenty years from the date of issue and bearing interest at the rate of not more than 6 per cent, and 5,990 shares of its non-par common stock, all of these securities to be issued to the Underlying Companies ratably to their respective net worths, as shown by their books, as of the effective date

of the transfer in exchange for their assets, franchises, works, and systems, and the distribution of securities, cancellation of intercompany claims, and assumption of liabilities to be reported seasonably and in detail to this Commission.

Our order will issue accordingly.

Barry and Swain, Commissioners, concur.

NEW YORK DEPARTMENT OF PUBLIC SERVICE, STATE DIVISION, PUBLIC SERVICE COMMISSION

Re Penn-York Natural Gas Corporation

[Case No. 9036.]

Franchises, § 30 — Capacity to receive — Foreign business corporation.

1. A foreign business corporation lacking power to engage in the business of a public service company, is without legal capacity to receive and to exercise franchise privileges in the public highways, p. 342.

Franchises, § 5 — Grounds for disapproval by Commission — Lack of capacity.

2. The Commission cannot approve the exercise of franchises granted by certain towns for the construction of natural gas lines when the recipient of the franchises is a foreign business corporation, organized for private purposes, which cannot legally receive such franchises, p. 342.

Franchises, § 20 — Powers of municipality — Grant to business corporation.

3. A municipality has no private estate or interest in the public streets for their absolute control, but direction as to their use is in the legislature; hence, a municipality is without power to bestow the right to occupy the public streets unless the donee of that right undertakes to serve the public, p. 342.

Certificates of convenience and necessity, § 2 — Unauthorized construction and operation — Temporary continuance — Public requirements.

4. No action was taken to discontinue service by a foreign business corporation to a natural gas utility, although construction and ownership of the gas line by the foreign corporation was illegal and transmission of gas therein could be stopped, where to do so would result in withdrawing the supply of natural gas to a large number of customers of the distributing utility and the foreign corporation proposed to organize a new company competent to hold the necessary consents and rights of way and to file a new application with the Commission, p. 343.

[March 2, 1937.]

PETITION *for authority to construct a gas plant and to exercise franchises granted by certain towns; petition denied.*

APPEARANCES: Lawrence G. Williams, Buffalo, Attorney for Penn-York Natural Gas Corporation, petitioner; John Howell, Buffalo, Attor-

ney for Penn-York Natural Gas Corporation, petitioner; Messrs. Quigley & Vedder, by E. C. Vedder, Olean, appearing for Producers' Gas Company; Messrs. Rann, Brown, Sturtevant & Kelly, by Howard R. Sturtevant, Buffalo, Attorney for New York Central Railroad Company; Messrs. Griggs, Baldwin & Baldwin, by Colonel Chas. G. Blakeslee, New York city, appearing for Cabot Gas Corporation of Olean; Laurence J. Olmstead, Counsel for the Public Service Commission.

BURRITT, Commissioner: The applicant herein asks our approval of the construction of a gas pipe line from the Pennsylvania border to certain points in the counties of Chautauqua and Erie, already constructed and in operation, and for the exercise of rights and privileges granted by certain local consents and franchises, already exercised. The sole purpose of the line is said to be to transport natural gas from recently developed fields in Pennsylvania to the Republic Light, Heat and Power Company, an affiliate of the petitioner in the Cities Service System, primarily to replace a dwindling present supply of natural gas for the use of domestic and small commercial customers.

The reasons given by the company for this application nunc pro tunc, is that prior to the commencement of construction it took the position that it would be engaged in interstate commerce, that it would not be a public utility since it did not propose to distribute but only to transport gas, and further that it would therefore not be subject to the jurisdiction of this Commission and so not required to secure its approval to the proposed construction and exercise of local consents.

Learning of this situation from newspaper accounts and from conversation with local representatives of the Republic Company, I reported it to the Commission on August 7, 1936. My report was referred to counsel. On advice of counsel the Commission on its own motion, October 2, 1936, adopted an order for an investigation of the facts and a determination of the question of jurisdiction.

A hearing in that proceeding was held at Buffalo on October 16, 1936. The company, though still objecting to our jurisdiction and moving to dismiss the proceeding, willingly submitted all the facts required and filed a brief on the law. After consideration of both the law and the facts, and on the advice of counsel, it was determined that the Commission did have jurisdiction. The company was so informed and on December 3rd the company submitted to our jurisdiction. All these matters are more fully set forth in my report to the Commission in Case No. 8961, which was approved by the Commission on December 8, 1936. The present application was filed December 15, 1936.

Agreement with the Republic Company.

On November 17, 1936, the petitioner entered into a contract (Exhibit 10)—filed with the Commission on November 18, 1936—with its affiliate, also owned and controlled by the Cities Service Company, the Republic Light, Heat and Power Company of Buffalo, for the sale of gas by the former and the purchase of gas by the latter, un-

der certain conditions. The principal conditions of this contract are contained in its paragraphs 1, 2, and 3, which read as follows:

"1. The corporation agrees to sell at the mouth of the well or place of production in the state of Pennsylvania and to transport from Pennsylvania and deliver to the utility in New York as hereinafter provided, natural gas in the amounts and in the manner hereinafter stated for a period of one year, beginning November 20, 1936, and ending November 20, 1937, and thereafter until terminated as herein provided. Either of the parties hereto shall have the right to terminate this agreement at any time after one year from the date hereof on giving the other party sixty days' advance notice in writing of such determination.

"2. The corporation agrees to deliver to the utility its requirements of merchantable natural gas. Such delivery to the utility shall be through meters at present located at or near Forestville, Chautauqua county, New York, and in the town of Alden, Erie county, New York, at or near the town line of Newstead, all sites to be selected and agreed upon between the parties hereto. The price to be paid therefor by the utility to the corporation shall be 42 cents per thousand cubic feet for all gas so delivered, except for gas sold by the utility to special customers on the utility's line using large volumes of gas."

A lower price for "special customers" using more than 500,000 cubic feet per month is then provided for, on a sliding scale, which ranges downward to 23 cents for more than 15,000,000 cubic feet per month.

"3. All gas sold and delivered under this contract shall be measured through the orifice meters installed and maintained by the corporation, located at the points above designated in paragraph two hereof."

Legal status of applicant.

The Penn-York Natural Gas Corporation is a Pennsylvania business corporation created July 21, 1936, as a result of the consolidation of the Penn-York Natural Gas Corporation of New York, which had been incorporated in 1931 under Art. 2 of the New York State Stock Corporation Law, with a similar Pennsylvania corporation which had been incorporated on July 20, 1936, under the laws of Pennsylvania. The corporation, which has its principal business office at Philadelphia, Pa., claims to be authorized to do business in the state of New York by virtue of its consolidation with the former New York company, and that under subsection 6 of § 91, and § 88 of the Stock Corporation Law, it acquired the powers of that corporation.

At the hearing in this proceeding held on January 29th in Buffalo, both the competence of the petitioner to receive a certificate and the power of the Commission to issue it were challenged on the ground that the Penn-York is a foreign business corporation not authorized to receive local consents or a certificate of convenience and necessity, and that therefore the Commission could not approve the application. Decision was reserved on the objection and proof taken on the merits of the application, subject to determination of the legal questions raised.

A brief and a supplemental brief were submitted by the company on February 17th and 18th on the questions thus raised. These have been carefully examined by counsel to the Commission, together with other pertinent matters and court decisions.

[1–3] The corporate powers of the applicant Penn-York Natural Gas Corporation, as set forth in the agreement of merger, are as follows:

"To produce, drill for, manufacture, develop, utilize, store, buy and sell, market, and otherwise deal in and with natural gas, artificial gas, manufactured gas, salt, brine and other mineral solutions, petroleum, gasoline, carbon, hydrocarbon, products of all kinds and the elements, constituents, products and by-products, mixtures, combinations, compounds, and blends of any thereof;

"To purchase, own, construct, maintain, and operate pipe lines, tanks, pump stations, wells, and all other facilities and property necessary or convenient to the transaction of such business and to have and exercise all powers, privileges and rights as are incidental thereto provided that the corporation *shall not engage in the business of a public service company.* To purchase or otherwise acquire, develop, sell, or otherwise dispose of or turn to account the gas, oil, and other mineral-bearing properties, leases, concessions, and any and all estates, rights, and interests whatsoever therein or thereto appertaining.

"The power to sell gas is expressly limited to the sale of such gas at the mouth of the well or place of production *under private contract and at wholesale only; and provided further that this corporation shall not engage in any business within the meaning of the Pennsylvania Public Service Law or exercise the power of eminent domain of Pennsylvania.*" (Italics ours.)

Despite these basic provisions of its incorporation, this corporation has sought and obtained local consents from municipalities and rights of way from individuals and has exercised eminent domain in New York state. Thus it has assumed the rights and prerogatives of a public service company, which its agreement of merger specifically provides it does not possess. Its power to sell gas is limited to private contract at wholesale at the mouth of the well. It is a business corporation organized exclusively for private gain and serving only the interests of its stockholders.

The acquisition and use of these local consents and rights of way has brought to the corporation under the jurisdiction of this Commission (§ 68 of the Public Service Law) and we are now asked to approve their exercise together with construction under them.

Commission counsel points out that the law is well settled that the legislature may delegate the right of eminent domain only where the particular property taken is devoted to a public use. Re Niagara Falls & W. R. Co. (1888) 108 N. Y. 375, 15 N. E. 429; Re Tuthill (1900) 163 N. Y. 133, 57 N. E. 303. He further states that the same rule applies as to franchises in highways where the use contemplated is inconsistent with ordinary highway purposes. New York v. Rice (1910) 198 N. Y. 124, 91 N. E. 283; Fanning v. Osborne (1886) 102 N. Y. 441, 7 N. E. 307; Bradley v. Degnon Con-

tracting Co. (1918) 224 N. Y. 60, 120 N. E. 89.

The use of streets and highways in this instance is a public use. This corporation contends that it is not a public utility and that it does not propose to serve or to hold itself out to serve the public. Quite apparently it seeks to enjoy all the advantages of a public utility without assuming the burdens which such a status imposes.

So counsel to the Commission concludes:

"The conclusion is inescapable that this petitioner is without legal capacity to receive and to exercise franchise privileges in the public highways. It naturally follows that this Commission cannot approve or permit it to hold that which it cannot legally receive.

"The municipalities which have purported to grant franchises to this petitioner have exceeded the powers delegated to them by the legislature. A municipal corporation possesses no inherent authority to create rights in others which affect the public. Rinehart v. Redfield (1904) 179 N. Y. 569, 72 N. E. 1150. A municipality has no private estate or interest in the public streets for their absolute control and the direction as to their use is in the legislature. Adamson v. Nassau Electric R. Co. (1895) 89 Hun, 261, 34 N. Y. Supp. 1073. A municipality is without the power to bestow the right to occupy the public streets unless the donee of that right undertakes to serve the public.

"This petitioner stands before the Commission in its original form as a private business corporation. In its present form under the law the Commission has no choice but to dismiss its petition."

Conclusion.

I agree with these conclusions of counsel. Either the petitioner is a public utility with the rights and privileges and the obligations to serve the public, which go with such a status, or it is not. If it is not a public utility then it cannot acquire the rights and privileges and avoid the obligations thereof. I hold that the local consents obtained are illegal because the Penn-York Natural Gas Corporation does not have the legal capacity to hold them and that our certificate of approval cannot be given because this business corporation is organized for private purposes and cannot legally receive them.

There are other minor legal questions involved, but in view of the conclusion on the major one, it is unnecessary to discuss them now. Nor, for the same reason, is it necessary to discuss the evidence on public interest or the merits of the proposal.

[4] The petition should be dismissed, but the petitioner has informally requested that if its contentions are not upheld, and its status found to be illegal, that it be permitted to withdraw its petition in order to organize a new company competent to hold the necessary consents and rights of way and to file a new application with this Commission. The Penn-York Natural Gas Corporation's construction and ownership of the line in question is illegal, and the transmission of gas therein could be stopped. However, to do so would result in withdrawing this supply of natural gas to 19,000 customers, the replacement of which

might not be possible in its entirety and which would certainly increase costs.

So long as the petitioner proceeds with all possible speed and diligence to establish its operations as legal and proper, I recommend that no action be taken to discontinue its service to the Republic Company. The petition must be denied.

NORTH CAROLINA UTILITIES COMMISSION

Citizens of Bryson City

v.

Smoky Mountain Power Company

[Docket No. 620.]

Discrimination, § 32 — Rates — Localities — Privately and municipally owned facilities.

1. No distinction can lawfully be made in rates for the same sort of service throughout the entire territory served by an electric utility, whether a part of its plant is leased from a municipality or not, p. 347.

Rates, § 32 — Commission jurisdiction — Company leasing municipal plant.

2. The Commission has jurisdiction to regulate the rates of a public utility company in serving under lease a municipality which owns but does not conduct its own plant, the plant having been leased to the utility company for a term of years, p. 347.

Statutes, § 15 — Construction — Legislative intent — Use of words "and" and "or."

3. A statutory authorization to the Commission to regulate service rendered by corporations other than such as are "municipally owned or conducted," in order to effect the legislative intent, must be construed as if the statute read "owned and conducted" where the legislature by another statute prohibits a public utility which leases an electric plant from a town from discriminating between its customers in the entire territory served, p. 347.

Rates, § 174 — Reasonableness — Property value as factor — Return.

4. The Commission, in order to determine whether or not rates are unreasonable and unjust, must first ascertain what is the fair value of all of the properties used and useful and actually used in rendering the service, and it must then determine whether the gross income produces, after proper deductions, a fair return upon fair value, p. 350.

Return, § 9 — Right to earn — Fair value basis.

5. Rates must be fixed so as to produce a fair return upon the reasonable value, p. 350.

Valuation, § 21 — Rate base — Factors considered.

6. Consideration must be given to original cost of construction, amount expended in permanent improvements, present-day cost of reproducing properties, accrued depreciation, what part of properties are actually used and needed in rendering service to the public, and all other pertinent facts which may aid in determining what is the true and reasonable value of the properties at the time rates are made, p. 350.

Valuation, § 40 — Rate base on reproduction cost theory — Excess over original cost — Price levels.

7. A valuation of utility property on the basis of reproduction cost less depreciation was held to be excessive where, with the exception of a new unit, the properties were sixteen years old, very little had been spent upon repairs, the property had been allowed to deteriorate, and the original cost of the property at a time when prices were much higher was lower than the reproduction cost estimate, p. 351.

Expenses, § 93 — Rental of plant — Property included in rate base.

8. Yearly rental of plant leased from a municipality should not be charged to operation when the operating utility company is treated as owner of all the properties for the purpose of determining fair value, p. 354.

Valuation, § 246 — Property included — Leased plant.

9. Property leased by an operating public utility should be valued on the same basis as other property, the rental of such property being excluded from operating expenses, p. 354.

Expenses, § 54 — Interest and discount — Borrowing to pay rental.

10. Interest and discount paid to banks on money borrowed by an operating utility company to pay yearly rental of plant which is included in the rate base is an improper charge to operating expense, p. 354.

Expenses, § 55 — Discounts on stock.

11. Discount on shares of preferred stock is not a proper charge to operating expense since discounts of this sort are payable only from net profits which may accrue from a reasonable return upon a fair valuation of the properties, p. 355.

Return, § 87 — Electric utility.

12. A return of 6 per cent was allowed in fixing rates of an electric utility, p. 355.

Rates, § 283 — Connected load charges — Room rates.

13. An additional charge for service depending upon the number of rooms in a house, or a different rate when one appliance is used than when another appliance is used, is unfair to the consumer and only of doubtful advantage to the utility, p. 355.

Rates, § 323 — Electric power — Demand — Measurement.

14. A rule governing the determination of horsepower demand should provide that the kilowatt demand for billing purposes shall be the average of the daily kilowatts of demand which occurred during the month for which the bill is rendered, p. 356.

Rates, § 231 — Contract with municipality — Effect of rental paid for municipal plant.

15. The rate charged by an electric utility company for current consumed

by a town, when not as proportionately high as the amount the company is obligated to pay to the town under an agreement for lease of the town plant to the utility, both having been fixed by agreement with the town during a period of peak prices, should not be reduced if the Commission has no power to reduce the annual payment to the town, p. 356.

[April 21, 1937.]

COMPLAINT *asking general reduction in electric rates; rate reductions ordered.*

WINBORNE, Commissioner: The above entitled matter came on for hearing before the Commission on Tuesday, July 7, 1936, at 10 o'clock A.M., upon a petition duly filed by various citizens of Bryson City, North Carolina, on the 5th day of December, 1935, asking that there be a general reduction in the rates charged by the Smoky Mountain Power Company for electric current sold by said power company to consumers within Bryson City.

Before filing answer the Smoky Mountain Power Company, hereinafter referred to as the respondent, entered a special appearance and asked that the case be dismissed for want of jurisdiction on the part of this Commission to pass upon the issues involved, for the reason that while the plant and distribution system in Bryson City was operated by the respondent, as lessee, the title to said properties was in the municipality and, therefore, the rates for the service were not subject to review by this Commission.

A ruling upon said motion was deferred without prejudice until the matter was heard, the respondent reserving all rights under its motion, filed answer to the petition on the 24th day of December, 1935.

This case was heard by Stanley Winborne, Commissioner, sitting alone.

The petitioners were represented by: J. M. Moody, Murphy; McKindley Edwards, Bryson City, and J. C. Crawford, Bryson City.

The respondent was represented by: J. Howell Green, Decatur, Ga.; Judge T. D. Bryson, Durham; T. D. Bryson, Jr., Bryson City, and E. C. Bryson, Esq., Durham.

Motion to Dismiss for Lack of Jurisdiction

The question of lack of jurisdiction of this Commission to pass upon the rates charged by respondent in Bryson City was argued at length by the attorneys for both the respondent and the petitioners, in which argument it was made to appear: That on July 2, 1929, the town of Bryson City, a municipal corporation acting by and through its mayor and board of aldermen entered into a contract of lease with one G. C. Dugas, which was later ratified by a majority of the qualified voters of the town of Bryson City at a special election, duly held on the 2nd day of July, 1929, whereas by the terms of said lease, for a period of thirty years from July 1, 1929, the town of Bryson City "conveyed" to the lessee, or his assigns, all real estate rights, equipment, and appliances

(particularly enumerated in said contract) in any way connected or used in connection with the electric generating plant and electric transmission and distribution system, which was then owned by the town of Bryson City, for a consideration of $12,500 per annum for the first ten years and $15,000 per annum for the remaining twenty years of said lease; said payments to be made annually in advance. As further consideration, the lessee agreed to install an additional power unit in the power house, of equal or greater size in capacity than the one then there, within ninety days from the execution of the lease. The lessee further agreed to make all necessary improvements and extensions of lines and service as conditions might require and that at the expiration of said lease all improvements and additions should become the property of the town of Bryson City.

It was further agreed that the lessee, during the period of said lease, should furnish power and light at rates not in excess of the schedule of rates then in effect and published with the exception of rates set forth on the last two pages of the published Rate Book. A copy of said Rate Book is attached to the contract.

It was also agreed that the lessee should furnish the town of Bryson City current for street lighting and water pumping at the rate of 3 cents per kilowatt hour throughout the term of the contract.

It was further agreed in said contract that the lessee should not serve with current generated at said plant, territory beyond a radius of 20 miles from the center of the Public Square of Bryson City, and that the requirements within the corporate limits should be supplied before any current could be sold outside of said town.

It was further agreed that the town of Bryson City would grant to the said lessee and his assigns an exclusive 30-year franchise for the sale of electricity within the present city limits and to extend said franchise as said city limits may be extended.

On August 3, 1929, the said G. C. Dugas transferred and assigned his rights under said lease to Smoky Mountain Power Company, the respondent in this action. The foregoing constitute the pertinent facts upon which motion to dismiss was made.

[1–3] In the very able brief of the respondent, filed with this Commission on February 15, 1937, numerous cases are cited where the courts have held that Commissions, such as this, have only such powers as are expressly granted by statute, and that any reasonable doubt of the existence in said Commissions of any particular power should be resolved against their exercise of such power.

It is then contended that the only regulatory powers conferred upon the Utilities Commission of North Carolina, are those set out in Chap. 134 of the Public Laws of 1933, and that the only authority conferred upon said Commission to regulate electric light and power companies is that provided for in § 3, subsection (3) of said act, wherein it is stated that the Utilities Commission shall have general supervision over the rates charged and the service given "by electric light, power, water and gas companies, and corporations, *"other than such as are municipally owned or conducted."* And that since it is admitted that the town of

Bryson City still owns the generating plant and distribution system within said town, although said system is operated by the respondent under lease, that this Commission has no jurisdiction over the rates charged and service given, for the reason in the words of the statute, it is expressly provided that where a plant is "municipally owned or conducted" this Commission shall have no supervision over the rates charged and the service given.

It appears to be well-settled law that this Commission has only such supervisory and regulatory powers as are expressly granted it by statute. The cases cited by respondent and other cases examined by this Commission fully support the respondent in its position that unless this Commission is expressly granted the authority to regulate the rates and charges of the respondent within the corporate limits of the town of Bryson City, then this Commission is without jurisdiction in this case. Therefore, in order that the jurisdiction of this Commission may be determined, it is necessary to consider the various statutes now in effect to ascertain to what extent and just what powers the legislature did grant this Commission, as expressed in the various sections of the law granting regulatory powers to the Commission. All of the powers conferred upon this Commission are not contained in Chap. 134, cited by the respondent.

The respondent contends that in the granting to the Commission the power to regulate electric rates, as contained in Chap. 134, § 3, sub-section (3) of the Public Laws of 1933, the clause "other than such as are municipally owned or conducted," excludes from the jurisdiction of this Commission all electric light and power companies which are either *owned or conducted* by a municipality. In other words, that if a municipality owns its plant and leases it to a private utility which operates it along with its operations outside of the municipality, this Commission has no jurisdiction over its operations or the rates charged by it within the municipality and that while this Commission would have authority to regulate the rates and service of the private utility, as in the instant case, in its operations outside of, and up to, the corporate limits of Bryson City, yet the rates in Bryson City are subject to no regulation whatever by any authority, for the reason that the title to the distribution system and generating station is in the town of Bryson City. The respondent makes a point of the use of the word "or" and argues that if the statute read "owned and conducted," instead of "owned or conducted," that then this Commission would have authority to regulate the rates and charges of a lessee of a municipally owned plant which conducted its operations, but that the legislature expressly took from the Commission any authority to regulate the rates and charges of the respondent, by using the word "or" instead of "and," and that in the case before us, under the contract of lease, the rates which were established in the peak period of prosperity shall remain sacrosant and beyond regulation for a possible period of thirty years, although the rates just outside of the corporate limits where service is rendered by the same utility are subject to regulation by this Commission.

To follow this argument of the re-

spondent, which would lock the rates within the town of Bryson City and permit regulation of the rates in the surrounding territory, all served by the same utility, would result in the violation of the mandatory provision contained in Chap. 307, § 6, Public Laws 1933, which provides: "That no utility shall, as to rates or services, make or grant any unreasonable preference or advantage to any corporation or person or subject any corporation or person to any unreasonable preference or advantage. No public utility shall establish or maintain any unreasonable difference as to rates or services either as between localities or as between classes of service." All of which means, as this Commission sees it, that where a utility serves a section, whether a part of its plant is leased from a municipality or not, there can be no distinction made in rates for the same sort of service throughout the entire territory served by the utility. Therefore, applying this section to the instant case, either this Commission is authorized and commanded to make the rates within and without Bryson City the same, for the same class of service, or else if the position of the respondent is sustained that this Commission has no jurisdiction over the rates in Bryson City, it must follow that this Commission could not even regulate the rates outside of Bryson City, because it might result in a discrimination between the customers of the utility, thereby locking the rates charged by the utility throughout the entire territory served.

This Commission cannot accept the respondent's interpretation of the statutes, nor does it believe that the legislature intended to deny this Commission jurisdiction to regulate the rates of a public utility in serving under lease a municipality which owns but does not conduct its own plant.

In the opinion of this Commission, § 3, sub-section (3) of Chap. 134, Public Laws 1933 and Chap. 307, § 6, Public Laws 1933, must be construed together to determine the true legislative intent. In § 6, *supra*, the legislature makes no difference between a public utility serving partly a municipally owned plant and the outlying territory, but says definitely there shall be no discrimination between its customers in the entire territory served. Therefore, when the legislature said previously at the same session, that this Commission should have no authority over electric companies municipally owned or conducted, in order that said two statutes may be harmonized, the only rational interpretation to be placed upon the words "owned or conducted" is that the legislature intended to say "owned and conducted." It is clear that the legislature had in mind that where a municipality both owned and conducted its own plant, it should regulate its own rates; or where it did not own its plant, but purchased power or leased facilities from a private company and conducted its own operations, that it would not be under the jurisdiction of this Commission. The word "or," therefore, in the opinion of this Commission, was loosely used and should be construed "and."

Such a construction of the word "or" is not at all unusual in construing statutes. In Long v. Jerzewski (1932) 235 App. Div. 441, 443, 257 N. Y. Supp. 371, the court says: "The word 'or' is often construed as 'and,'

and vice versa, when the change better expresses the intent of the legislature." In 25 R. C. L. p. 977, we find the editor quoting from a court decision as follows: In the interpretation of statutes the courts have frequently held the word or to mean and. Further on in the same text we find this statement: "The popular use of 'or' and 'and' is so loose and so frequently inaccurate that it has infected statutory enactments, . . . (and) their strict meaning is more readily departed from than that of other words."

In the case of Manson v. Dayton (1907) 153 Fed. 258, it was decided, and many cases cited therein supporting the decision, that: "To prevent an absurd or unreasonable result, the word 'and' used in a contract may be read 'or' or vice versa."

We have not been able to find any case in North Carolina exactly in point, but do find that in State v. Walters (1887) 97 N. C. 489, 2 S. E. 539, our court held that: "The word 'or' in criminal statutes cannot be interpreted to mean 'and,' when the effect is to aggravate the offence or increase the punishment." This decision by inference recognizes that there are cases wherein the word "or" may be construed "and."

The Commission has carefully considered the cases cited by the respondent in support of its position that, under the wording of the statute, the Commission has no jurisdiction where the utility either owns or operates its electric system, but in view of the interpretation of the statutes by his Commission, as heretofore stated, the motion to dismiss for want of jurisdiction is denied.

Having held adversely to the respondent on its motion to dismiss the petition for want of jurisdiction, the case is now before the Commission for consideration upon its merits. The issues raised by the pleadings are as follows:

1. Are the rates charged by the respondent unjust?

2. Are the rates charged by the respondent unreasonable?

3. Are the rates charged by the respondent unjustly discriminatory?

The affirmation of each of these issues is maintained by the petitioner and denied by the respondent.

The first two issues as to whether rates are unjust and unreasonable are so interrelated and interdependent that they will be considered together.

[4–6] In order to determine whether or not rates are unreasonable and unjust, it must first be ascertained what is the fair value of all of the properties used and useful (and actually used) in rendering the service. Further it must be determined whether the gross income produces, after deducting reasonable administrative costs, proper amounts for maintenance, depreciation, taxes, going concern value, and other necessary expenses recognized by law as proper deductions, a fair return upon a fair value of the properties.

The reasonable value, when determined, forms the rate base and, under the law, the rates must be fixed so as to produce a fair return upon the reasonable value. In reaching a conclusion as to what is a reasonable value of the properties, consideration must be given to original cost of construction, the amount expended in permanent improvements, the present-day cost of reproducing the properties,

the accrued depreciation, what part of the properties are actually used and needed in rendering the service to the public and all other pertinent facts which may aid in determining what is the true and reasonable value of the properties at the time the rates are made.

For the purpose of showing the original cost of the properties, the petitioner first offered the deposition of Dr. Charles E. Waddell, engineer in charge of construction and employed by Bryson City at the time the power plant was constructed. Dr. Waddell testified that the total cost of the Bryson City power plant at the time of its construction in May, 1925, exclusive of land but including the transmission line from the power plant to Bryson City, was $190,175.34; that later there were some extensions made which increased the approximate cost of the power plant and transmission line to $200,000. Dr. Waddell made no attempt to give the cost of the distribution system within Bryson City, the cost of the new unit which was constructed by the Smoky Mountain Power Company, subsequent to the lease, the present reproduction cost of any of the properties, nor the amount of accrued depreciation.

From the testimony of Dr. Waldroup, also in the form of a deposition, it was developed and finally admitted, that all of the land owned and used by the Smoky Mountain Power Company, or owned by the town of Bryson City and used for the power plant, cost $13,435.

The cost of the distribution system within the town of Bryson City, according to the testimony of Dr. Waldroup, was approximately $3,000; but this valuation is based upon the witness' opinion and not upon actual knowledge.

From the foregoing testimony of the petitioners' witnesses, the original cost of the power plant and transmission line and extensions was $200,000, the land $13,435, and the original distribution system $3,000, making the total original cost $216,435. To this amount should be added, according to the petitioners' contention, the admitted cost of the new unit constructed by the Smoky Mountain Power Company subsequent to the lease, outside of the town of Bryson City, of $23,991.20, according to the testimony of the respondent's witness, E. D. Lester, thereby making a grand total of $240,426.20, as representing the original cost of all the properties of the Smoky Mountain Power Company, according to the testimony of the petitioners' witnesses, plus the cost of the new unit, as testified to by the respondent's witness, Lester.

[7] Aside from the cost of the new unit, $23,991.20 and that of the land $13,435, the respondent contends that the present reproduction value of the properties is much greater than the original cost given by the petitioners' witnesses and to establish the present reproduction cost less depreciation of all of the properties of the Smoky Mountain Power Company the respondent offered testimony of Mr. Curtis A. Mees, a consulting engineer who was employed by the respondent the week before the hearing to estimate the value of the properties. Mr. Mees testified that, on Saturday and Sunday just preceding the hearing, he inspected the power plant and distribution system, examined the records of the

company, used the 1924 contract of Dr. Waddell as a base and reached the conclusion that the present reproduction cost new of the power plant and land would be $160,144. To this amount he added the cost of transformers, lightning arresters, substations, transmission line, and $10,000 for supervision fee, making a total of $199,809. To this amount the witness Mees further added 2 per cent organization expense, 1 per cent legal expense, 6 per cent interest during construction, thereby increasing the total to $212,000.

The 11.3 miles of distribution system within Bryson City would cost, according to the opinion of the witness Mees, $1,400 per mile to reproduce new, including cut-ins to the customers. Then to the new total was added 12 per cent or $17,900 for overhead and $25,700 for the new unit, making a grand total of $275,282 as the reproduction cost of all of the properties of the Smoky Mountain Power Company, according to the testimony of the witness Mees. To this amount other items were added and depreciation deducted, until finally the conclusion was reached by the witness that the present reproduction cost new, less depreciation of all of the properties of the Smoky Mountain Power Company was $299,500, and to this amount the witness testified there should be added the amount of $29,500 for going concern value.

From a very careful analysis of the testimony of the witness Mees, the Commission is definitely of the opinion that the valuation placed on said properties by him are unreasonably high and the amounts deducted by him for depreciation are much too small. With the exception of the new unit, the entire plant was constructed and materials purchased in 1925, when prices were about as high as this country has ever known, and the original cost of the properties at that time was far greater than the cost of reproducing the properties new when this case was heard. Furthermore, these properties, with the exception of the new unit, are sixteen years old and there is some evidence that a part of the distribution system was built in 1911. Very little has been spent upon repairs and the property has been allowed to deteriorate until, quoting from the witness Mees, "Water is already under part of the pier and section of the taintor gates; it is washed out on the lower side of the dam." When asked if there had not been a sufficient amount of erosion to go through the dam, the witness replied: "I doubt whether it will, but the dam may fall; if it goes too far the dam may go over." Further testifying concerning depreciation, the witness Mees stated: "On the water wheels the rimmers are very badly worn."

In further discussing the depreciation observed on his two days' inspection of the plant, the witness Mees gave as his opinion that the total depreciation on all of the properties of the respondent company was $12,700. In breaking down this amount, it is found that the items are as follows: Depreciation of the dam, $7,500; distribution system, $5,000; meters $200; cut-ins, $1,000; transmission line, $2,500; substations, $1,000; the water wheels, $2,000, and miscellaneous, $1,000, making a total of $17,200, instead of $12,700 testified to by Mr. Mees. Even this amount,

when considered in the light of the condition of the dam and other properties, as described by Mr. Mees, appears grossly inadequate to place the properties in A-1 condition. Furthermore, it is inconceivable to this Commission that these properties, constructed at a time when price levels were much higher than now and in the deteriorated condition described by Mr. Mees, could be worth more today than when originally constructed in 1925. In fact, this Commission believes that the figures given by Dr. Waddell, as the original cost of the properties constructed by him, plus the cost of the land, the new unit and the cost of the distribution system, result in a value considerably greater than the present reproduction cost, less the accrued depreciation. Considering the decline in the cost of construction of power plants and of all materials and equipment used in connection with the construction of the power plant and distribution system, the age of the plant and distribution system, the deteriorated condition of the dam and the distribution system, and the rapid decline in land values since 1925, the Commission finds that a fair value for the various properties are as follows:

1. For the power plant, the transmission line from the plant to the town of Bryson City and the other extensions, including $10,000 engineering fee, which the witness Waddell testified actually cost $200,000 in 1925, the reproduction cost new at this time, less depreciation, is found to be $150,000.

2. The value of the land which, it was admitted, cost $13,435 in 1925 and which is located in a mountain gorge and is the reservoir of the power plant, is found to be, at this time, $5,000.

3. The distribution system which consists of 11.3 miles and part of which was constructed, according to the testimony, in 1911 and the major part in 1925, the value of which ranges, from the testimony of the witness, from $3,000 to $15,000, the Commission finds the reproduction cost new, less depreciation, to be $7,000.

4. The new unit which was constructed in 1929, at a cost of $23,991.20, the Commission finds the reproduction cost new, less depreciation, to be at the same rate which the respondent company charges per year as an operating expense for depreciation of the new unit, namely, $1,194.14, to be $15,597.53.

5. The new pole line, consisting of 2½ miles pole line and east from Whittier approximately three-fourths of a mile on the Camp Creek road, the extension in Toot Hollow and the street light extension in Bryson City which, according to the testimony, cost $2,942.41 and on which, according to the respondent's witnesses, there was already an accrued depreciation of $485.89 one year ago, the Commission finds the present value, after having deducted the depreciation at the same rate for another year to be $2,213.71.

6. The Cherokee rural line, consisting of approximately five miles of transmission line and three-fourths of a mile of distribution line with transformer and lightning arresters which, according to the testimony of the respondent's witnesses, cost originally $6,575.06, on which there was, a year ago, accrued depreciation, according to the testimony of the respondent's

witnesses, of $2,191.68, the Commission finds the present value, after deducting the depreciation at the same rate for another year, to be $3,835.46.

7. The Whittier rural line which, according to the testimony of the respondent's witnesses, originally cost $4,500 in the latter part of 1929, the Commission finds the reasonable present value, less depreciation, at 3 per cent for the years 1930–1936, inclusive, to be $3,690.

The total value of all seven items listed above is $187,336.70, which the Commission finds to be the reproduction cost new of all the properties of the respondent company, less depreciation, and which amount is hereby declared the rate base upon which the respondent company is entitled to earn a fair return. In the above valuation is included what the Commission believes to be fair to cover all engineering costs, going concern value, interest during construction, and all other items upon which the respondent company is entitled to earn a return, but in order that these amounts may be amply covered, the rate base is increased to $195,000.

Having found the value of all the properties of the respondent company, it now becomes necessary to determine what is the proper annual operating expense.

In the "Profit and Loss" statement of the respondent company, filed with this Commission, covering a period from June 30, 1935, to June 30, 1936, the total gross income is shown to be $34,141.34. The same statement shows that the operating expenses of said company are $35,320.20. An analysis of the operating expenses reveals, however, many items which, in the opinion of the Commission, should not be included in the operating expenses.

[8, 9] The item of $12,499.92, charged to operation, is for yearly rent paid by the respondent company to the town of Bryson City, under the terms of the lease. So far as this case is concerned, it makes no difference what amount the respondent pays under its lease contract. The case was tried upon the theory, and properly so, that if this Commission had jurisdiction over the rates of the respondent company, that it should be treated as though it were the owner of all of the properties and a determination made as to the reasonable value of the properties upon which the company was entitled to a return. The respondent admits in its brief that "The trend of the decisions indicates that property leased by a public utility should be valued on the same basis as other property, the rental for such property, under the lease, being excluded from operating expenses." Several cases are cited by the respondent in support of the above position, with which this Commission fully concurs.

[10] For the same reason, the item of $563,31, for interest and discount paid to banks on money borrowed by the respondent to pay the yearly rent, is likewise an improper charge. The two items together total $13,063.23.

The item of $4,800, which the company has been paying in salaries to the two McCrary brothers, $3,000 to one and $1,800 to the other, in the opinion of this Commission, is excessive. These men are officers of the respondent company but, according to the testimony, only very occasionally visit-

ed the plant and are engaged in other businesses elsewhere. The supervision and management of the plant is left to others, who are paid fair salaries. Furthermore, it appeared in evidence that J. B. McCrary Company, a firm of which the said McCrary brothers are also officers, furnished engineering service to the Smoky Mountain Power Company, for which they received liberal fees.

In the opinion of this Commission $1,200 a year is a fair salary for Mr. J. B. McCrary and $600 a year for Mr. J. A. McCrary, and no greater salaries should be charged to operating expenses unless and until the income of the company, under the rates hereinafter set forth, increases sufficiently to justify greater salaries than $1,200 and $600 a year, respectively, for these officers. This deduction in salaries further reduces the operating expenses in the amount of $3,000 a year.

[11] The last item charged as an operating expense is that of $1,883.83 for discount on 188 shares of preferred stock. Discounts on stock or stock dividends are never chargeable as operating expenses, but are only payable from net profits which may accrue from a reasonable return upon a fair valuation of the properties. If this were not true, the consumer could be forced to pay exorbitant rates in order that the utility might pay dividends on worthless stock. Rates are not fixed on the amount of outstanding stock but on a reasonable value of the properties.

The total of the amount disallowed in the operating expense account, as hereinbefore enumerated, is $18,007.06. Taking this amount from the $35,320.20, we find the proper operating expenses of the company to be $17,313.14. Deducting $17,313.14 from the gross income of $34,141.34, we find the net profit of the respondent company for the year ending June 30, 1936, to be $16,828.20.

[12] Allowing the respondent 6 per cent, or $11,700 on $195,000, the amount which has been found to be the proper rate base and deducting the $11,700 from the $16,828.20, which has been found to be the net profit of the respondent company, there is a balance of $5,128.20 in excess of a fair return available for rate reductions.

[13] The schedules of rates now charged by the respondent company became effective upon the execution of the lease in July, 1929, and by agreement were then made the same as those charged by the Carolina Power & Light Company in the city of Asheville. These rates, and especially the schedule of rates for domestic service are out of line with present-day rate structures and not only preclude the consuming public from enjoying the freer use of electricity but, at the same time, prevent the respondent company from receiving the amount of revenue which, in the opinion of this Commission, it will receive by modernization of the entire rate structure. An additional charge for service, depending upon the number of rooms in a house or a different rate when one appliance is used than is charged when another appliance is used, this Commission has found to be unfair to the consumer and only of doubtful advantage to the utility. Therefore, the entire domestic, or residential and commercial, schedules are canceled throughout the entire territory served, except on the

Indian Reservation transmission line; the room rent charge eliminated and the combination and lighting rates merged in the new residential rate, which is available to residential customers for all purposes, as follows: [Schedule omitted.]

Power for Wood Turning Plants
Schedule W. T. P.

[14] The only change ordered in this schedule is under the heading Contract Horsepower. The present schedule provides: "The contract horsepower under this schedule shall be the horsepower demand as determined under the provisions of Rule 4 of the Rules and Regulations." From the effective date of this order, Rule 4 is abrogated, so far as it applies to the period of determining the demand and it is hereby ordered that the kilowatt demand for billing purposes shall be the average of the daily kilowatt of demand which occurred during the month, for which the bill is rendered. The rates under this schedule were reduced by this Commission August 26, 1935, over the protest of the respondent.

Large Miscellaneous Power
Schedule L. M. P.

The only change ordered in this schedule is under the heading Contract Horsepower. The present schedule provides: "The contract horsepower under this schedule shall be the horsepower demand as determined under the provisions of Rule 4 of the Rules and Regulations." From the effective date of this order, Rule 4 is abrogated, so far as it applies to the period of determining the demand and it is hereby ordered that the kilowatt demand for billing purposes shall be the average of the daily kilowatt of demand which occurred during the month, for which the bill is rendered.

The Commission finds that no changes in any schedule, other than as heretofore mentioned, is justified. The aggregate reduction made in the residential and commercial rates and in the change in the manner of determining the power demand, as hereinbefore set out, will amount to, according to the calculations of the Commission, based upon the amount of electricity heretofore consumed, approximately $4,500 per year.

[15] No reduction has been made in the rate charged by the respondent company for current consumed by the town of Bryson City, for the reason that, in the opinion of the Commission, this rate is not as proportionately high as the $12,500 which the respondent company now is obligated to pay to the town of Bryson City each year, under the lease agreement and which amount will be increased to $15,000 within the next few years. The rate which the town of Bryson City is paying the respondent company for municipal purposes and the amount which the respondent company agreed to pay to the town of Bryson City, under the lease, were both fixed during the peak period of 1929 and this Commission has no power to reduce the annual payment by the power company to the town and, therefore, it does not feel that it would be fair and just to reduce the amount which the town at the same time agreed to pay the respondent company for current for municipal purposes. While this Commission

has no authority over the lease consideration and is not hereby attempting to exert any, yet it feels strongly that, under the present changed conditions, the town of Bryson City should give serious consideration to the reduction of the $12,500 which the respondent company is now paying yearly to the town and which, under the contract, will increase to $15,000 within the next few years. If $12,500 was a fair annual rental for the properties, according to values prevailing at the time the lease was made and the rates agreed upon, then it seems quite obvious that it is excessive upon the values found by this Commission at this time and the rates hereinbefore fixed should, in equity and good conscience, be voluntarily reduced by the town of Bryson City.

Since this order was written down to this point, it has been suggested to this Commission, by letter dated April 19, 1937, that the respondent company has been notified by the revenue department of this state that the company is liable for gross receipts taxes, which it has not paid, and this Commission is asked to take into consideration, in arriving at its conclusions in this case, a proper amount for gross receipts taxes, which may hereafter be assessed against the respondent company.

It is true that the statement of operating expenses, submitted at the hearing of this cause, contained no amount for gross receipts taxes, but since there is no evidence before the Commission as to what the gross receipts taxes are or will be, and since it has not been even at this time determined what the gross receipts taxes may be, the Commission cannot consider and allow an arbitrary amount which may hereafter be assessed against the respondent company by the tax authorities of the state. Whenever these taxes are assessed and paid, the facts may hereafter be shown in another proceeding and will then be considered by this Commission in the light of the financial condition of the respondent company at the time the matter is presented.

PENNSYLVANIA PUBLIC SERVICE COMMISSION

Public Service Commission

v.

Clark's Ferry Bridge Company

[Complaint Docket No. 8219.]

Commissions, § 26 — Jurisdiction — Bridge tolls — Effect of condemnation proceeding.

1. The Commission has jurisdiction to require a reduction in toll bridge

rates during the pendency of a proceeding instituted by state officials to condemn and appropriate the property of the bridge company, although such officials have taken possession of the bridge in the name of the commonwealth, serving notice upon the company that thereafter the tolls collected on the bridge should be for the use and benefit of the commonwealth, it appearing that the company is still the owner of the bridge and continues in possession thereof under the protection of an injunction pending final disposition of an equity proceeding, p. 359.

Expenses, § 111 — State corporate loans taxes.

2. State corporate loans taxes are not allowable as operating expenses since it is established law that taxes assumed by a public utility for its creditors are not to be borne by its patrons, p. 361.

Expenses, § 114 — Income taxes — Basis — Excessive revenues.

3. Income taxes should be provided upon the basis of the allowable revenues rather than upon actual revenues when because of litigation over a Commission's rate reduction order patrons have paid excessive revenues, p. 362.

Procedure, § 36 — Effect of court decision — Return allowance.

4. The Commission, although regarding 6 per cent return fair and adequate, allowed a return of 7 per cent to a bridge company in ordering the establishment of rates in accordance with a court's decision sustaining a Commission rate order based on a 7 per cent return, p. 363.

[March 8, 1937.]

PROCEEDING *to require a toll bridge company to comply with a Commission rate reduction order following appeals to the courts and affirmance of the order; company ordered to file new tariff.*

By the COMMISSION: On January 14, 1930, the Commission filed a complaint on its own motion against the then rates of respondent. By its report and order of February 2, 1932, at Public Service Commission v. Clark's Ferry Bridge Co. 11 Pa. P. S. C. 222, P.U.R.1932C, 295, the Commission determined the fair value of respondent's property used and useful in the public service, to be $767,800, upon which a return of 7 per cent per annum or $53,746, was allowed. Annual operating expenses of $22,700 and annual depreciation of $7,678 were allowed, thereby permitting gross annual revenues of $84,124.

Respondent appealed from this order to the superior court, which increased the gross annual revenue to $85,455, due to the allowance of an additional sum of $1,331, representing amortization of bond discount: Clark's Ferry Bridge Co. v. Public Service Commission, 108 Pa. Super. Ct. 49, P.U.R.1933D, 173, 165 Atl. 261. The supreme court of the commonwealth thereafter refused to allow an appeal from the decision of the superior court, and respondent then appealed to the Supreme Court of the United States which, on February 5, 1934, affirmed the findings: Clark's Ferry Bridge Co. v. Pennsyl-

vania Pub. Service Commission, 291 U. S. 227, 78 L. ed. 767, 2 P.U.R. (N.S.) 225, 54 S. Ct. 427.

The present proceeding was instituted against the Clark's Ferry Bridge Company, upon the Commission's own motion, to require the bridge company ". . . to show cause why the order of this Commission dated February 2, 1932, *supra,* should not be further complied with by said company filing, posting, and publishing a new tariff which, based on its experience of the last two years, will produce a gross annual revenue not exceeding the sum of $85,455 . . ."

[1] The answer of respondent sets forth that on January 21, 1936, the secretary of highways of this commonwealth instituted proceedings in the court of common pleas of Dauphin county on behalf of the commonwealth of Pennsylvania to condemn and appropriate the property of respondent and on the same day took possession of the bridge of respondent in the name of the commonwealth of Pennsylvania, serving notice upon respondent that thereafter the tolls collected on the said bridge should be for the use and benefit of the commonwealth. Those proceedings were instituted and pursued under Art. IX, § 16 of the Constitution of Pennsylvania and the provisions of the Act of January 2, 1934, Special Session P. L. 205. On January 22, 1936, respondent obtained from the court of common pleas of Dauphin county a preliminary injunction restraining the secretary of highways from continuing in possession of the property of respondent and from collecting and appropriating its tolls. The said injunction was, on March 5, 1936, continued until final disposition of the equity proceeding. No such final disposition has been made.

Respondent argues that it has no right, power, or authority to reduce its tolls during the pendency of said equity proceeding, and that the Commission during the pendency of such proceeding has no power to require such reduction. Respondent urges that if the commonwealth shall be held properly and legally to have taken possession of the Clark's ferry bridge, then the Commission is without jurisdiction since it has no power to regulate tolls charged by the commonwealth. Respondent also contends that if it reduces the tolls now being collected, it is in danger of surcharge, in the amount of such reduction, if the commonwealth shall ultimately be held to have taken possession of the bridge.

We see no merit in this position. Respondent is the owner of the Clark's ferry bridge and continues in possession thereof under the protection of an injunction. It is of no moment in the present proceeding whether either the commonwealth or the respondent intends to press for an early completion of the equity proceeding. Suffice it to say that this Commission has a duty to protect the public and that duty is not discharged if a public service company in full possession of its property is permitted to continue the collection of excessive and unreasonable rates for the use of that property by the public.

The revenue to which respondent is entitled has been determined by this Commission, the courts of this commonwealth, and the Supreme Court of the United States. If respondent

should reduce its rates so that its revenue would no longer exceed its lawful and proper limit it is inconceivable that the commonwealth of Pennsylvania would attempt to surcharge the company by reason of an attempt to comply with the law and to establish reasonable rates for the traveling public on one of the main highways of the commonwealth. In this regard we are not left to vague conjecture. The attorney general of the commonwealth and the secretary of highways of the commonwealth have, in writing, agreed that the commonwealth shall make no attempt to surcharge the bridge company by reason of any reduction in rates required by order of this Commission, even should it be determined that the commonwealth has had legal possession of Clark's ferry bridge since January 21, 1936. These written agreements by the responsible officials of the Commonwealth are a part of the record in this case.

Respondent argues that neither the secretary of highways nor the attorney general can bind the commonwealth in the premises, but we are unable to perceive any validity in such an argument. We refuse to make the untenable assumption that compliance with an order of this Commission made in accordance with the decrees of the courts of this commonwealth and the Supreme Court of the United States for the protection of the traveling public of the commonwealth, could ever, in the face of the specific disavowals of any intention to surcharge the respondent by virtue of such compliance, be made the basis of a suit by the commonwealth to effect such surcharge.

This apparition of surcharge conjured by respondent is wholly a chimera. Respondent admits that the amount of revenue to which the commonwealth would be entitled was fixed as of January 21, 1936. The legal collectible revenue on that date was the amount fixed by us and by the Pennsylvania superior court and the Supreme Court of the United States, subject to reasonable adjustment in the light of conditions since that determination. We do not propose to order a reduction in revenue below such legal and lawful limit.

An amendment to respondent's answer was filed on November 13, 1936, averring "That the necessary operating expenses of the respondent have increased approximately $9,000 per annum since the time when the Commission estimated and computed the allowable gross revenue of the respondent."

No evidence has been offered by either party relative to the present value of the used and useful property, as contrasted to the value of $767,800 fixed by the Commission on February 2, 1932, *supra*, and ultimately sustained by the Supreme Court of the United States. Therefore, we adopt at this time the same amount as representing the fair value of the property presently used and useful in the public service.

The operating expenses as ultimately affirmed amounted to $22,700. Respondent now claims an additional sum of $9,000 or an adjusted annual allowance of about $31,700, as being representative of the amount necessary properly to operate and administer its affairs. Evidence was sub-

mitted on behalf of respondent, to show wherein the expenses are expected to increase to the extent claimed in the year 1936, as well as the extent to which they actually increased in 1934 and 1935. In the following tabulation, these expenses for the 3-year period are compared, item for item, with the amounts previously allowed:

	Amounts Previously Allowed	Actual Expenses 1934	Actual Expenses 1935	Estimated Expenses 1936
Wages:				
Superintendent	$1,200	$900.00	$900.00	$900.00
Clerk	900	900.00	900.00	900.00
Tollkeepers	7,200	9,799.00	8,863.30	8,479.95
Officers' salaries (Part)	2,400	2,400.00	2,400.00	2,400.00
Snow removal	200	.....	374.40	647.85
Coal	350	229.90	203.70	225.00
Light	1,100	1,185.93	1,255.83	1,153.60
Legal services	100	200.00	116.30	100.00
Accountants	200	316.25	285.00	340.00
Postage and printing	200	154.80	122.66	75.57
Miscellaneous expenses	400	447.48	581.38	400.00
Maintenance of bridge	1,800	72.42	162.61	600.00
Insurance	1,700	1,992.53	1,393.96	1,339.72
Federal income tax	3,000	5,023.04	7,175.88	6,093.90
State income tax	....	.....	2,727.60	4,226.54
Federal capital stock tax	....	600.00	988.26	600.00
State capital stock tax	2,200	2,500.00	2,500.00	2,500.00
Local tax	50	32.12	30.50	28.86
Rental received—Credit	300	710.80	747.79	750.00
Totals	$22,700	$26,042.67	$30,233.59	$30,260.99

[2] According to the foregoing tabulation, the 1936 expenses will exceed the previous allowance to the extent of $7,561, and not to the extent of $9,000 as claimed by respondent. The difference results from the inclusion by respondent in operating expenses of the annual amounts payable for State Corporate Loans Taxes, for which the Commission originally made no allowance. It is established law that taxes assumed by a public utility for its creditors, are not to be borne by the patrons of the public utility: Bangor Water Co. v. Public Service Commission (1923) 82 Pa. Super. Ct. 48, 58. We, therefore, adhere to our original position and exclude this tax from the allowable operating expenses.

The increase of the operating expenses in 1936 over the previous allowance is mainly caused by increases in the annual tax liability of the respondent as shown below:

	Amounts Previously Allowed	Actual Expenses 1934	Actual Expenses 1935	Estimated Expenses 1936
Taxes:				
Federal income	$3,000	$5,023.04	$7,175.88	$6,093.90
State income	....	.....	2,727.60	4,226.54
Federal capital stock	....	600.00	988.26	600.00
State capital stock	2,200	2,500.00	2,500.00	2,500.00
Local	50	32.12	30.50	28.86
Total Taxes	$5,250	$8,155.16	$13,422.24	$13,449.30
Operation and maintenance	17,750	18,598.31	17,559.14	17,561.69
Rental received—Credit	300	710.80	747.79	750.00
Totals	$22,700	$26,042.67	$30,233.59	$30,260.99

The Commission's previous allowance for the item of operation and maintenance appears to have been proper. However, by reference to the tabulation of the individual items, it becomes evident that over allowances were made for some types of expense, while others were underestimated. The most apparent difference is in the item of "maintenance of bridge" for which the Commission allowed $1,800, whereas only $600 is provided in the 1936 estimate. While the actual experience in 1934 and 1935 resulted in charges of only $72.42 and $162.61, respectively, for this item, it is a known fact that maintenance charges on property of this character do not occur with such regularity as to permit reasonably accurate estimates from actual experience for a period of such short duration as two years. In our previous report and order dated February 2, 1932, *supra*, the sum of $1,800 was allowed "against the time when resurfacing of the roadway is necessary." For this reason, we reaffirm the former allowance of $1,800, thereby increasing the total provision for operation and maintenance from $17,750 to $18,750, all the remaining operating costs being allowed at the amounts experienced in 1935 and as estimated for 1936, the totals for the two years being only $2 apart.

Based upon the company's actual experience, we will allow $2,500 for state capital stock tax, $600 for Federal capital stock tax, and $30 for local taxes. With reference to Federal and state income taxes, it was stated of record that the amounts shown by respondent for the three years represented the tax liabilities payable upon the revenues actually received and not upon the $85,455 of revenues previously allowed. Respondent submitted of record, subsequent to the hearing of October 28, 1936, the amounts that would have been payable upon the allowable revenues, as contrasted with the amounts shown by the above tabulation. A comparison follows:

Basis of Calculation	Federal Income Tax	State Income Tax	Total
1934—Actual revenues	$5,023.04		$5,023.04
Allowable revenues	3,768.97		3,768.97
Difference	$1,254.07		$1,254.07
1935—Actual revenues	$7,175.88	$2,727.60	$9,903.48
Allowable revenues	4,863.01	1,820.74	6,683.75
Difference	$2,312.87	$906.86	$3,219.73
1936—Actual revenues	$6,093.90	$4,226.54	$10,320.44
Allowable revenues	3,714.76	2,762.96	6,477.72
Difference	$2,379.14	$1,463.58	$3,842.72

[3] For the reason that patrons who in the past have paid admittedly excessive revenues should not be required to pay, in addition thereto, taxes based upon such excessive revenues, we will provide income taxes, upon the basis of the allowable reve-

nues, rather than upon the actual revenues. Thus, our allowance for Federal income tax will be $3,715, and for state income tax, $2,763.

[4] The Commission definitely reaffirms its position in regard to the fairness and adequacy of a 6 per cent return as set forth in its resolution of April 2, 1934. However, the 7 per cent rate of return allowed by the Commission in this case was approved by the superior court, Clark's Ferry Bridge Co. v. Public Service Commission, *supra,* and was sustained by the Supreme Court of the United States, Clark's Ferry Bridge Co. v. Public Service Commission, *supra.* We consider ourselves bound by these expressions of the courts in relation to the present proceeding. It may be that 7 per cent is an unreasonable rate of return under the circumstances now obtaining, but this question, in our opinion, should be dealt with in a separate proceeding rather than in the present case which is based upon the court orders referred to. Furthermore, the rate base upon which the return is calculated was fixed by both the Commission and the courts prior to the enunciation of our policy by the resolution of April 2, 1934. For these reasons we have calculated fair return upon a 7 per cent basis.

In accordance with the foregoing, we increase our allowance for annual gross revenues to $90,375, made up as follows:

Return	$53,746
Annual expenses	18,012
Taxes	9,608
Annual depreciation	7,678
Amortization of bond discount	1,331
Total	$90,375

The annual revenues of respondent were $105,359 in 1934, and $113,032 in 1935. The revenues for the first eight months of 1936 were $71,960, as compared with $72,150 in the first eight months of 1935. It follows that respondent's present rates are excessive and unreasonable. Respondent will be directed to file a new tariff calculated to produce a revenue, on the basis herein adopted, not in excess of $90,375 per annum; further, that upon filing the said new tariff, there shall be submitted to the Commission a detailed estimate of the annual revenue that will be thereby produced.

WASHINGTON DEPARTMENT OF PUBLIC SERVICE

Re Seattle & Rainier Valley Railway Company

[D-1288, Order M. V. No. 25533.]

Certificates of convenience and necessity, § 60 — Good-faith operation — Auto transportation companies — Status of railway.

1. An interurban railway company is excluded from the provisions of a

statute providing for the issuance of certificates of convenience and necessity as of right to an "auto transportation company" engaged in operation prior to the effective date of the regulatory law, since it is not an "auto transportation company"; and it cannot become entitled to a certificate of public convenience by operating for any length of time, even though the railway company has operated railway cars on routes parallel to bus lines, p. 366.

Commissions, § 30 — Jurisdiction — Statutory limitations.

2. Whether a wrong policy has been adopted by regulatory statute of the legislature is not for the Department to say, but if a wrong policy has been adopted the remedy is by application to the state legislature, p. 368.

[April 17, 1937.]

APPLICATION *by electric railway company for a certificate of public convenience and necessity to furnish passenger service by motor vehicles; denied.*

By the DEPARTMENT: This matter came on regularly for hearing at Olympia, Washington, on the 14th day of January, 1937, pursuant to notice duly given, and was continued thereafter on the 15th day of January, 1937, before W. D. Lane, Supervisor of Transportation, and Ralph J. Benjamin, Supervisor of Public Utilities.

The parties were represented as follows: Applicant, by Kennedy and Schramm; T. J. L. Kennedy and Emil G. Gustavson, Attorneys, Seattle. Department of Public Service of Washington, by Will M. Derig, Attorney. Protestants: Seattle-Renton Stage Line, Inc., by Raymond W. Clifford and Ernest H. Campbell, Attorneys, Olympia. North Bend Stage Line and Diamond Stage Company, by Ray Ostrander, Attorney, Olympia.

Witnesses were sworn and examined, documentary evidence was introduced, and the Department, being duly advised in the premises, makes and enters the following

Findings of Fact

On September 17, 1936, Seattle and Rainier Valley Railway Company filed its application for a certificate of public convenience and necessity to operate motor vehicles in furnishing passenger service between Seattle and Renton, Washington.

In stating the conditions which are relied upon by the applicant as justification for the granting of such certificate, applicant alleges:

"Applicant's interurban transportation service antedates by many years all other existing service furnished over the route involved, whether under certificate of public convenience and necessity, or not, and whether by stage or otherwise; and has been continuous since the year 1896."

The proposed route is as follows: From Fourth avenue and Stewart street in Seattle, south on Fourth avenue to Airport way, thence on Airport way to Dearborn street, thence on Dearborn street to Rainier avenue to the south city limits of Seattle,

thence via Sunset highway, State Road No. 10, to Third avenue and Main street in Renton.

Time schedules and passenger tariff were filed with the application.

The granting of the application was protested by Seattle-Renton Stage Line, Inc., North Bend Stage Line, Inc., and Diamond Stage Company, on the ground that the application is for a certificate to operate in "territory already served." Seattle-Renton Stage Line, Inc., is the holder of Certificate No. 34, authorizing it to operate between Seattle, Bryn Mawr and Renton, and intermediate points. North Bend Stage Line, Inc., is the holder of Certificate No. 100, authorizing it to operate between Seattle and North Bend, via Renton and Issaquah. Diamond Stage Company is the holder of Certificate No. 217, authorizing service between Seattle and Black Diamond via Renton. We find that said certificates, Nos. 34, 100, and 217, and each of them are good, valid, and subsisting certificates of public convenience and necessity under the provisions of Chap. 111 of the Laws of 1921 of the state of Washington, and that the holders of same operate over the route described in the application of the Seattle and Rainier Valley Railway Company.

Applicant filed what it called an "answer" to the protests filed by the stage lines, in which it was affirmatively alleged that the service being rendered by each of the protestants was inadequate; that applicant's service was prior in time; and protestant's operations were invalid ab initio. Protestants filed replies in denial.

We find that applicant and its predecessor, Seattle-Renton and Southern Railway Company have for about forty years operated a street railway and interurban service between Seattle and Renton continuously until about June 14 or 15, 1936, when, owing to encroachments for highway construction purposes on its right of way, bus service was substituted between Seattle city limits and Renton. This bus service was permitted by the Department only as temporary substitute service upon certain specified conditions and in all events only until January 1, 1937. (Exhibit 2.) Applicant discontinued the service altogether on January 1, 1937. The application under consideration was not filed until September 17, 1936.

Testimony also showed that the street railway franchise of applicant in Seattle expired December 31, 1934, and that it did not have any franchise with either the city of Seattle or the city of Renton; that the temporary permit from the city of Seattle under which it had been operating was revoked by Ordinance No. 65613, effective September 26, 1936. It was also shown that the applicant had sold all of its operating property in Seattle to the city; that it has been ordered by the city of Seattle to remove its tracks from the city streets within ninety days from January 12, 1937; that a first mortgage, covering all its property on which no interest had been paid since 1928 was being foreclosed; that title to a portion of its private right of way is also in litigation; that it owes $1,000 in real estate taxes and $59,497.21 for other delinquent taxes.

In the reply brief of applicant the issues are very much narrowed, wherein it is said:

"In conclusion, let us reiterate that we have no quarrel with the cases cited by protestants on the question of the necessity of notice before granting the certificate as a matter of right, provided applicant is accorded the same right; we have no quarrel with the cases cited by protestants giving the certificate-holder the right to provide additional service, if the same be necessary, before granting a certificate *to a new-comer* attempting to enter the field and preëmpt protestant's business; we have no quarrel with the cases cited by protestants, holding an existing carrier entitled to the protection of its investment—rather, seconding the contention and insisting that the same rule applies to applicant. *Be it remembered that applicant will not be instituting a new service as a companion service to its railway, attempting, while holding the rail patronage, to encroach upon the bus patronage.* The applicant is doing nothing more than merely substituting motor bus facilities for street cars now abandoned.

"So that the only real point upon which the parties differ is whether applicant is not entitled to a certificate of public convenience and necessity as a matter of right, as long as protestants are in possession of such certificates. The latter do not deny that the original certificates were not issued to them and that they are merely successors in interest to the original holders. Protestants urge that applicant is too late in requesting the issuance of a certificate to it, but fail to point to any provision in the statute regarding the time within which a common carrier, actually operating in good faith on January 15, 1921, over the route for which said certificate is sought, must apply for the same. Certainly there was no reason in the world for the railway company to make such application until the abandonment of its railway service. If the application were made prior to such abandonment, the cases cited in protestant's brief might well be in point."

This seems to state the issue fairly and concisely. We understand this to mean that applicant relies solely upon the right to substitute bus service for its former railway service; that it was in good faith operating street cars over the route in question on January 15, 1921, and is not barred by the lapse of time from asking for a certificate as such; and that it has as good a right to a certificate as protestants.

[1] It will be necessary in this connection to examine the statute. Chapter 111 of the Laws of 1921 makes no provision for the issuance of certificates of convenience and necessity to any person or corporation except auto transportation companies. An "auto transportation company" is defined as "every corporation or person," etc., "owning, controlling, operating, or managing any motor propelled vehicle not usually operated on or over rails used in the business of transporting persons, and/or property for compensation over any public highway in this state between fixed termini or over a regular route, and not operating exclusively within the incorporated limits of any city or town." (Rem. Rev. Stats. § 6387.) It is clear that the operations of applicant were not being or carried on as an auto transportation company.

Applicant concedes, and relies upon

the fact that it had abandoned its street railway service before applying for a certificate. By the definition of "auto transportation company" a railway company is excluded from the provisions of the act, and cannot become entitled to a certificate of public convenience by operating for any length of time. The stage companies operating between Seattle and Renton on January 15, 1921, were in a position to apply for and receive certificates. Applicant could not have done so because it was not an "auto transportation company." The stage operators, of course, have been under regulation by the Department as auto transportation companies, required to keep public liability and property damage insurance on file with the Department, and to make reports and pay gross revenue fees. As a street railway company, applicant was not required to accept these burdens.

Section 4, Chap. 111, Laws of 1921 (Rem. Rev. Stats. § 6390 Supp.) reads:

"No auto transportation company shall hereafter operate for the transportation of persons and, or, property for compensation between fixed termini or over a regular route in this state, without first having obtained from the Commission under the provisions of this act a certificate declaring that public convenience and necessity require such operation; but a certificate shall be granted when it appears to the satisfaction of the Commission that such person, firm, or corporation was actually operating in good faith, over the route for which such certificate shall be sought on January 15, 1921. Any right, privilege, certificate held, owned, or obtained by an auto transportation company may be sold, assigned, leased, transferred, or inherited as other property, only upon authorization by the Commission. The Commission shall have power, after hearing, when the applicant requests a certificate to operate in a territory already served by a certificate holder under this act, only when the existing auto transportation company or companies serving such territory will not provide the same to the satisfaction of the Commission, and in all other cases with or without hearing, to issue said certificate as prayed for; or for good cause shown to refuse to issue same, or to issue it for the partial exercise only of said privilege sought, and may attach to the exercise of the rights granted by said certificate to such terms and conditions as, in its judgment, the public convenience and necessity may require."

It will be noted that the mandatory provision of the statute is that, "a certificate shall be granted when it appears to the satisfaction of the Commission that *such person, firm, or corporation* was actually operating in good faith, over the route for which such certificate shall be sought on January 15, 1921." Applicant contends that this applies to a street railway company, but it will be noted that "such person, firm, or corporation" refers to auto transportation companies only.

We find that the application is for a certificate to operate in territory already served by protesting stage companies. Applicant concedes that a *new comer* could not challenge the

certificate rights of protestants, but insists that it is not a "new comer." However, it never operated busses until about the middle of June, 1936. It not only concedes, but contends, that it had abandoned street railway operation before it applied for a certificate, and ceased bus operations on January 1, 1937. Chapter 111 of the Laws of 1921 applies to auto transportation companies only. The fact that a railway company operated railway cars on routes parallel to bus lines on January 15, 1921, gives it no right to a certificate of public convenience and necessity as a good faith operator.

It could hardly be seriously contended that any railroad company operating across the state, or for instance, between Seattle and Bellingham on January 15, 1921, could at any time in the future substitute bus or bus and truck operation for its passenger and freight service and be entitled to a certificate as a good faith operator. If so, it would seem that a steamboat operator might do the same. We do not think that this is the intent of the law which deals with auto transportation companies only. Even if applicant could have made application for a certificate after January 15, 1921, we think it would now be barred by laches.

We think that the foregoing findings dispose of the only issue in the case, as conceded by applicant in its reply brief. If applicant is entitled as a matter of right to a certificate, no further findings are necessary, and the same is true if it is not entitled to a certificate.

This is not a case in which the Department is permitted to use its discretion in granting or refusing a certificate to one or both of two applicants. It is conceded that there are already three certificate holders operating over the route in question.

[2] The legislature has enacted specific statutes which clearly define our authority. If a wrong policy was adopted by these statutes the remedy is by application to the state legislature. Whether the policy adopted was right or wrong is not for this Department to say. We have considered these statutes carefully and can justify only the interpretation which we have adopted herein. We find that the applicant is not entitled to a certificate as a matter of right, and that the application should be denied.

Industrial Progress

Johns-Manville to Build $1,000,000 Factory

LEWIS H. Brown, president of the Johns-Manville Corp., announced that work will be started as soon as possible on the first unit of a $1,000,000 factory to be located on a 50-acre plot of land in Watson, suburb of Los Angeles, California.

The new factory will produce rock wool home insulation and transite asbestos-cement pipe, two products which in the past have been manufactured in the company's mid-Western and Eastern plants only.

The new factory is expected to employ approximately 300 men.

This construction project is in addition to the company's $3,420,000 factory expansion program for 1937 announced in February.

New Dodge Dump Truck

ANNOUNCEMENT is made of a short wheelbase truck with a new cab-over-engine conversion and special dump body on a 1937 Dodge chassis.

This special body is mounted upon a 1½ ton Dodge truck chassis with a 108-inch wheelbase. The dump body side is hinged horizontally for greater capacity and ease in loading ashes and other bulky materials. The slanting rear gate also gives it slightly greater load space. It is equipped with a hydraulic hoist.

This particular unit is to be used in city work, although it is adaptable for numerous other purposes. The short wheelbase provides small turning radius and greater facility for handling in location where little space is available.

G-E Products Described

RECENT illustrated bulletins and brochures issued by the General Electric Company include the following subjects: Pressure and Vacuum Switches, CR2927; Surface Air Coolers for Turbine-Generators, GEA-2503; Direct-Acting Generator-Voltage Regulator, Type GDD; Screenless Open-Textile Motor, GEA-1557A; Lightning Protective Equipment for A-C Rotating Machines, GEA-1743B; Transformer-Oil Drier and Filter, GEA-1333A; Type FK-45 Indoor Oilblast Circuit Breaker, GEA-2603; Two-Element Single-Disk Watthour Meter, GEA-2404A; The 1937 Model Thermotel, GEA-309F; The San Francisco-Oakland Bay Bridge Lighted with Sodium, GEA-2541.

Copies of these publications may be obtained from the General Electric Company, Schenectady, New York.

New Silvray Lighting Units

SILVRAY Lighting, Inc., pioneer manufacturer of commercial and industrial lighting equipment designed for use with Silvered Bowl Mazda lamps, has announced the creation of an entirely new line of fixtures aimed to furnish low-cost indirect lighting in any room of the home through the medium of cen-

Dodge Dump Truck Has Cab Over Engine

tral ceiling outlets, thus augmenting the Better Light—Better Sight and I-E-S lamp activity of the past few years.

These new units, attractively styled, make indirect lighting instantly available in any room without the necessity of wiring, due to their special "Screw-Base" construction which permits the entire fixture to be inserted into existing sockets the same as a bulb.

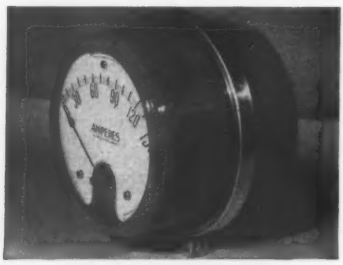
Because this form of installation eliminates servicing of any kind, the units are particularly attractive for sale over the counter in retail stores. They are especially suited for power company merchandise activity along the same lines as I-E-S lamps.

Catalogues and literature will be furnished upon request to Silvray Lighting, Inc., Long Island City, N. Y.

New Plug-In Instruments Need No Panel

NEW, low-cost, detachable instruments for general industrial use whose sockets may be cut into the conduit run feeding a motor or grouped in standard metal boxes to constitute a panel assembly, are announced by Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

Sockets can be installed at low cost in all circuits feeding electrical loads in industrial plants and processes where it would be helpful



Detachable Ammeter

to know consumption and performance characteristics, even if only occasionally. Direct advantages of the plug-in instrument for industrial use include, (1) socket provides its own switchboard eliminating costly panels, wiring and mounting details, (2) various instruments can be plugged in the same socket to obtain volts, amperes, watts, power factor, kilowatt hours, etc., and (3) sockets can be installed and sealed off providing convenient outlets for future installation of instruments or making connections for portable analyzers for periodic testing.

Safety-First Pamphlet

BARTLETT Manufacturing Company has issued a pamphlet on safety first for tree trimmers, describing how safety and strength are built into its insulated trimmers for high voltage tree trimming. Copies may be obtained from the Bartlett Manufacturing Company, 3003 East Grand Boulevard, Detroit, Michigan.

Elliott Company Issues New Booklet

THE Elliott Company has issued a new publication, Bulletin L-6, on Elliott Generators and Motors.

This 24-page booklet is primarily a picture-book showing Elliott generators and motors of all types and sizes installed in various plants. While the bulletin is not informative as to design and construction details of these machines, which are built in all types above 50 hp, it shows their wide range of application. Copies of this new Bulletin L-6 may be obtained from the Elliott Company, Jeannette, Pa.

Object of Lincoln Arc Welding Contest Further Explained

DR. E. E. Dreese, Chairman of the Board of Trustees and of the Jury of Awards, The James F. Lincoln Arc Welding Foundation, Cleveland, Ohio, has issued a statement further clarifying the object of the Foundation's $200,000 Series of Awards.

Although a definite object of the awards is to urge architects, engineers, designers and production managers to study products which are now partially welded so that electric welding may be applied more extensively, the primary object, Dr. Dreese points out, is to encourage study of products and structures built by some other method so that electric welding may be used in construction.

Ample time is allowed by the duration of the Foundation award program—closing June 1, 1938—to permit engineers to acquire sufficient knowledge of the principles of arc welded construction to apply the method in product or structure redesign. To be suitable as subject matter for a paper, it is not necessary that the product or structure be built entirely by arc welding. The rules of the Foundation state that the machine, structure, building, manufactured or fabricated product may be designed, either in whole or in part for the use of arc welding.

Insect Light Trap

A UNIQUE light trap for moths and other nocturnal flying insects, suitable for use by home owners and stores, hotels, restaurants and amusement resorts, has just been placed on the market by The Miller Company, Meriden, Conn.

Simple in design and construction, it may be substituted for the ordinary lighting globe used on most properties and it functions as a lighting source as well as an insect trap.

Given thorough tests, both in home use as a means of ridding the porch of flying insect pests, and in orchards and gardens as an aid in

cutting down cutworms and other insects in the moth stage, this new light trap has proven itself an efficient means of attracting and capturing all types of night flying insects.

The equipment consists of a globe of special design made of diffusing glass, having its sides pierced by three slots, curving inward towards the one-hundred watt Mazda lamp; it is easily installed by means of screwing into an ordinary light socket or attaching to the ceiling.

$1,700,000 Expansion is Planned for Nash Plant

NASH-KELVINATOR Corporation is planning a $1,700,000 modernization and expansion program for the Nash automobile factories at Milwaukee, Racine and Kenosha, Wisconsin, according to a recent announcement by George W. Mason, president.

The program has for its objective an increase of 30 per cent, in production capacity. Extensive changes will be made both at the Racine and Kenosha plants and at the Seamon Body Company in Milwaukee, the latter a subsidiary.

Modernization of production methods and facilities will constitute the major part of the program, no extensive new building operations being contemplated. The work will be rushed during the summer months, and is expected to be completed by early fall before production begins on the 1938 Nash models.

Improved Street Lighting Cuts Detroit's Accident Rate

IMPROVED street lighting in Detroit has slashed the high rate of fatal night accidents on 31 miles of streets where the death rate was the highest in the city for more than two and one-half years.

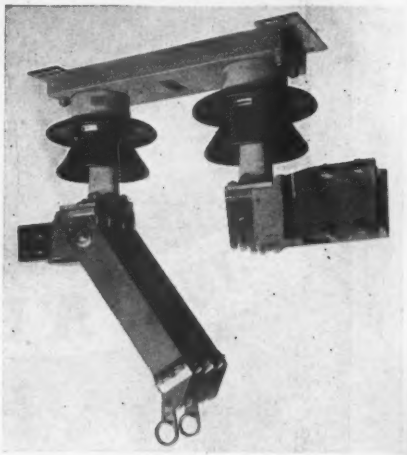
Working in collaboration with General Electric Company's engineers, the city's Public Lighting Commission improved the lighting along these 31 miles and since the new lighting has been in operation (covering periods from four to eight months on different sections) there have been but five night fatalities and four day fatalities, or a ratio of 1.25 to 1.

These results, the Commission reported, show that night-traffic accidents can be materially reduced with adequate street lighting. There is no doubt that a properly designed street or highway-lighting system will provide safety at night equal to that by day while driving at the same speeds.

Lighting along the 31 miles of streets has been increased from two to five times what it was during 1934, 1935, and eight months of 1936 when the night to day auto-fatality ratio was seven to one. The city's new luminaires have distinct advantages that materially increase visibility, in addition to their utilization factor. Reflectors of the new units are arranged to produce a fairly even pavement brightness, and car drivers are relieved of any objectionable glare. These factors are highly important for easy and quick discernment.

Delta-Star Announces Heavy Duty Disconnecting Switch

DELTA-STAR Electric Company, Chicago, Illinois, announces a 4000 ampere 23 K.V. outdoor form multiple blade straight line construction terminal to terminal disconnecting switch which is equipped with blade locks and silvered contacts. One terminal is for use with heavy copper tubing, the other for flat bars.



4000 Ampere 23 K.V. Switch

EEI Prize Awards

ANNOUNCEMENT of seven prize awards sponsored by the Edison Electric Institute was made at the final session of the Institute's fifth annual convention held in Chicago, by Frank W. Smith, chairman of the Prize Awards Committee.

New Orleans Public Service, Inc., of New Orleans, La., won the Augustus D. Curtis Award for the advancement of artificial illumination of commercial and public buildings. The cash prize of $300 which accompanies the award was given to C. S. Green of the Sales Promotion Division of the same company, as the individual responsible for the achievement.

Honorable mention was given the Ohio Public Service Company, Cleveland and to Commonwealth Edison Company, of Chicago. The Curtis award was donated by Darwin and Kenneth Curtis of Curtis Lighting, Inc., in memory of Augustus D. Curtis. Judges of the Award were Ely Jaques Kahn, Howard Myers, and G. Bertram Regar.

Winner of the George A. Hughes Award was the Utah Power & Light Company, Salt Lake City. The judges conferred honorable mention on Niagara Electric Service Corp., Niagara Falls, N. Y., and New York & Queens Electric Light and Power Company, Long Is-

land City, N. Y. The Hughes Award was donated by George A. Hughes, president, Edison General Electric Appliance Company, Inc., to the utility company which has shown the greatest contribution to the development of the domestic electric cookery load through promotion or selling, or both, and cash prizes totalling $1,000 to the individuals responsible for the achievement. Judges were Shelley Tracy, L. E. Moffatt, and Dr. Hugh E. Agnew.

A bronze plaque donated by Thomas W. Martin, president, Alabama Power Company, for the greatest contribution to the advancement of rural electrification was awarded to Niagara, Lockport & Ontario Power Company, Buffalo, N. Y.

Three cash prizes donated by the Public Utility Engineering and Service Corp. in memory of Colonel H. M. Byllesby for papers on any accounting subject relating to the electric light and power industry were awarded to H. O. Hussong, California Oregon Power Company; L. M. LaPorte and E. M. Wagner of the Milwaukee Electric Railway & Light Company; and Neil E. Heikes, Public Service Company of Northern Illinois, Chicago.

A cash award prize of $250 donated by B. C. Forbes, editor of Forbes' Magazine, for the most meritorious paper dealing with the subject of Public Relations in the electric light and power industry was awarded to Clarence M. Killian of the Alabama Power Company, Birmingham, Alabama.

Cash prizes given by A. L. Lindemann, president of A. J. Lindemann and Hoverson Company, for papers dealing with the advantages of electric cookery for domestic purposes were awarded to Paul L. Myers, Florida Light & Power Company; R. L. Greene, Detroit Edison Company; George E. Kelley, Portland (Ore.) General Electric Company. Judges for this award were Earl Whitehorne, Miss Ada Bessie Swann and Miss Mildred A. Nichols.

Prizes for papers on any engineering or technical subject relating to the electric light and power industry, offered by James H. McGraw, honorary chairman of the McGraw-Hill Publishing Company, were awarded to J. M. Mousson, Safe Harbor Water Power Corp., Baltimore; Wallace C. Rudd, Consolidated Edison Co. of New York; and Anson D. Marston, Kansas City Power & Light Co., Kansas City, Mo. Judges were John C. Parker, J. T. Barron and W. I. Slichter.

A new award, to be known as the R. B. Marshall Award, the gift of R. B. Marshall, president of Electromaster Inc., was announced. It will provide for five prizes of $100 each for individual sales achievements in electric range sales over a twelve-months' period.

$4,000,000 Harvester Plant Planned

INTERNATIONAL Harvester Company will shortly begin construction on a seventy-five-acre site at Indianapolis of a $4,000,000 plant for the manufacture of motor truck engines.

Initial capacity when the plant is finished, around February 1, 1938, will be 700 truck engines a day with a staff of 3,000 employes.

Engine manufacture for the truck line will be concentrated at the new plant, releasing facilities at Fort Wayne and Rock Island for other work.

In addition a new branch house is being built at Indianapolis.

Consolidated Edison Awarded Coffin Medal

THE Charles A. Coffin Medal, most coveted of all awards for which electric light and power companies can compete, has been awarded to the Consolidated Edison Company of New York, Inc., for "a distinguished contribution to the development of electric light and power for the convenience of the public and the benefit of the industry."

The award was announced by Charles W. Kellogg, president of the Edison Electric Institute, at the final session of the Institute's fifth annual convention held recently in Chicago. Gerard Swope, president of the General Electric Company made the presentation. John C. Parker, vice president of the Consolidated Edison Company, accepted the award for the Company.

Judges were Mr. Kellogg, Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, and Louis H. Egan, president of the Union Electric Light and Power Company of St. Louis.

The Charles A. Coffin Award was established in 1922 by the General Electric Company as a tribute to the late Charles A. Coffin, a founder of that company and one of the great leaders that the industry has produced. The award comprises the Charles A. Coffin gold medal, a certificate, and a check for $1,000 for the use of the winning company's employee's benefit association.

For Your Information

EMPLOYEE Contact Through the Bulletin Board, a report recently issued by the Policyholders Service Bureau, Metropolitan Life Insurance Company, indicates that many companies look upon the bulletin board as one of the most effective means of quickly putting flash messages before employes and, conversely, as an excellent medium for keeping continuously before them campaigns on safety, waste reduction and similar topics.

Seventy companies contributed information concerning their policies and practices. Manufacturers, railroads, utilities, retailers, and distributors are represented. How important the bulletin board is considered as a means of employe contact may be suggested by the fact that 11 companies reported that the responsibility for bulletin board policy and for review of material for posting is assumed by officials of the company. In 12 other cases either the personnel or the safety director is held responsible.

Copies of the report may be secured from Policyholders Service Bureau, Metropolitan Life Insurance Co., 1 Madison Ave., New York, N. Y.

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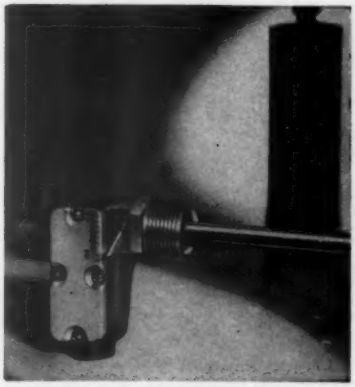

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We sincerely believe that the facts discovered by our people at Nela Park have enabled the industry to take an important step forward, through increased lighting load—and through the building of customer good will. May we suggest that you look upon this work as an extra dividend that you obtain in full measure chiefly through your purchase of General Electric equipment.

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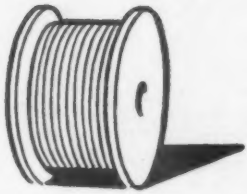

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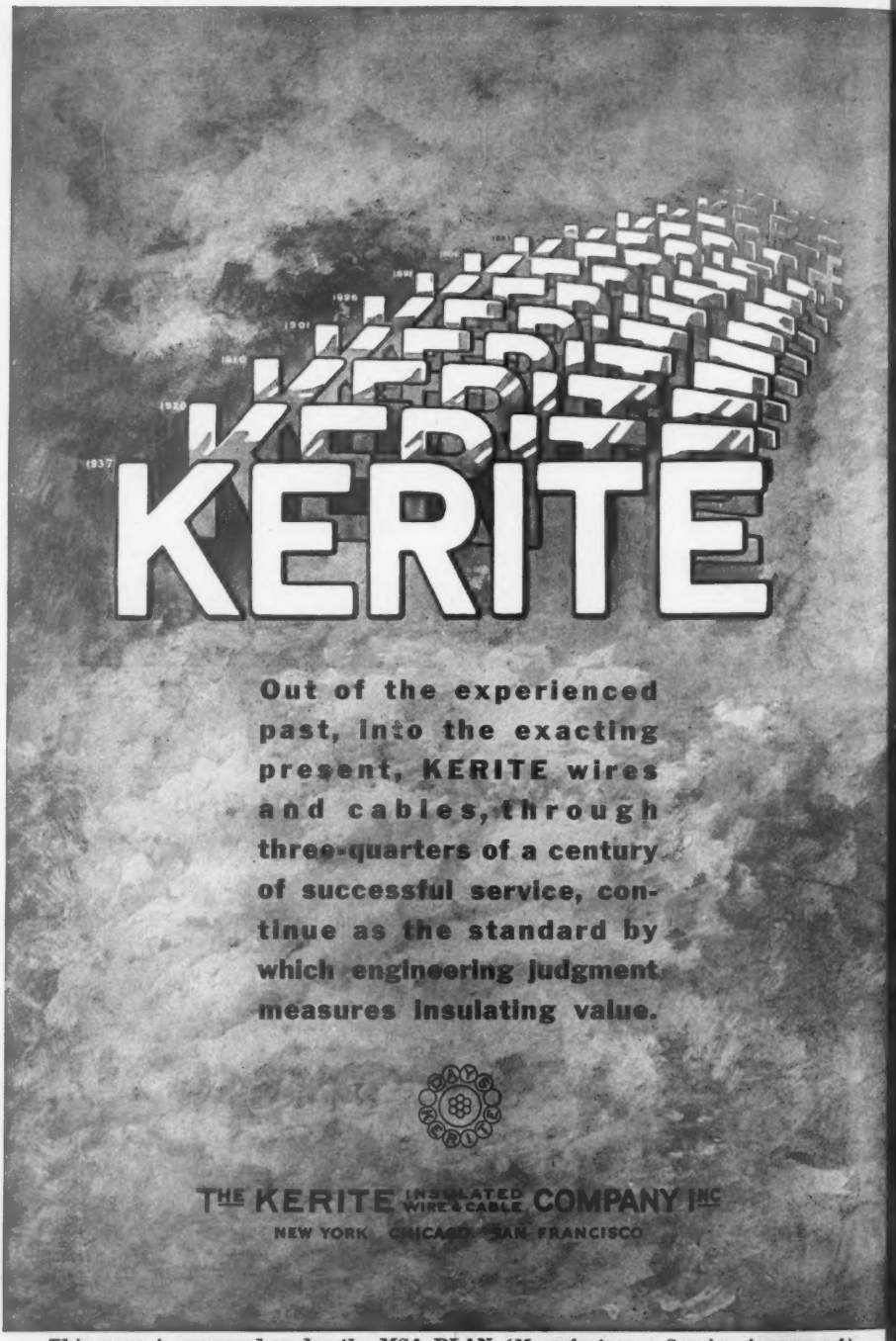

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PROFESSIONAL DIRECTORY

• This page is reserved for engineers and engineering concerns especially equipped by experience and trained personnel to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, design and construction. « «

Public Utilities

FORTNIGHTLY

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PUBLIC UTILITIES REPORTS, INC.
WASHINGTON, D. C.

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